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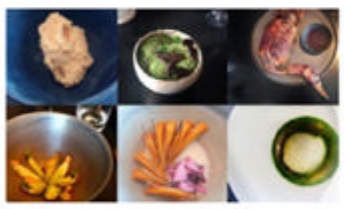
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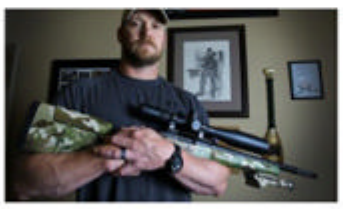


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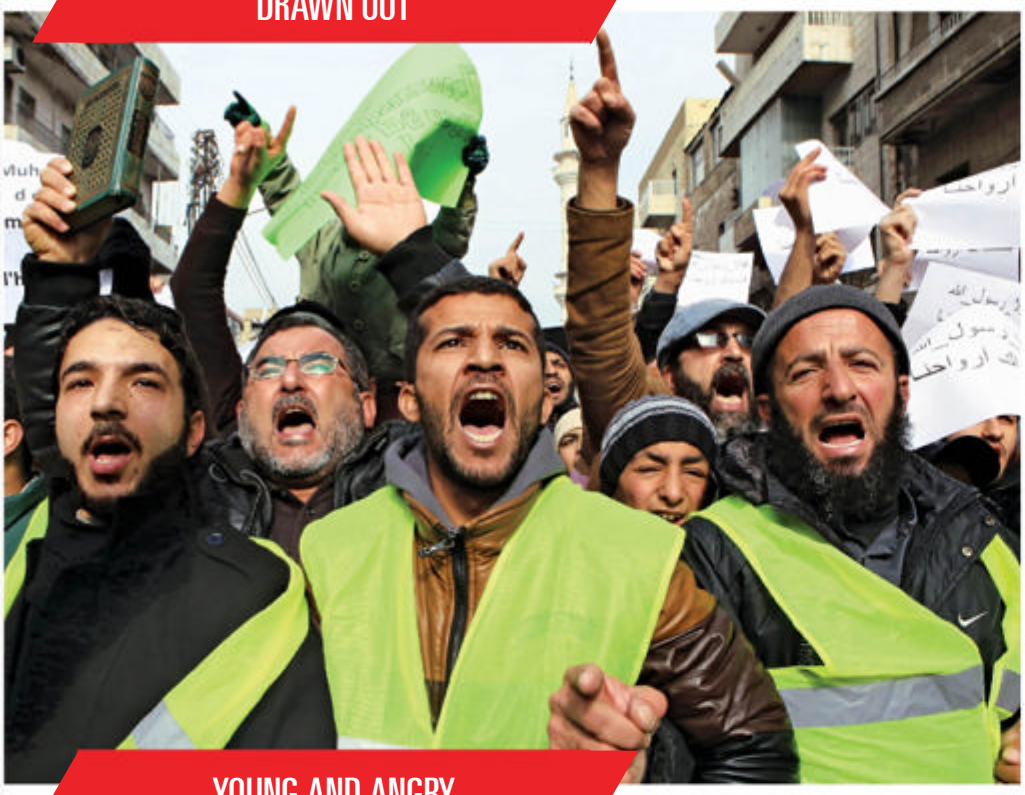
A RESTAURANT WITH A WAITING LIST OF 60,000



'AMERICAN SNIPER' AND THE SOUL OF WAR

BIG SHOTS

DRAWN OUT



NOT ALL IS FORGIVEN



YOUNG AND ANGRY



RED-CARPET TREATMENT





Jan Stromme/Stone Sub/Getty

NONE OF US ARE SLEEPING

SLEEP IS CRUCIAL TO OUR HEALTH. SO WHY DO WE SEEM HELL-BENT ON GETTING BY WITH LESS AND LESS OF IT?

If you're feeling cranky, confused or too tired even for sex, blame it on Thomas Alva Edison. We're all bushed, and it's all his fault.

Humans have been screwing with their body clocks—and getting less sleep—ever since the Wizard of Menlo Park had his very bright idea. Indeed, our classic eight-

hour-night only dates back to the invention of the light bulb in the late 1800s. Historians believe that before the dawn of electric lighting most people got plenty of sleep, and practiced what they call “segmented sleep,” snoozing for several hours in the first part of the night, when darkness fell, then waking in the middle of the night for a few hours of eating, drinking, praying, chatting with friends or maybe even canoodling, before ducking back under the covers again until morning. The arrival of electricity, argues sleep historian A. Roger Ekirch, led to later bedtimes and fewer hours of sleep overall.

We’re still waging a war on sleep, and we are, alas, still winning. Researchers at the University of Chicago recently studied our sleep patterns over time and concluded that we now sleep between one and two hours less than we did 60 years ago. In the 1970s, most Americans slept about 7.1 hours per night: Now the mean sleep duration has plunged to 6.1 hours. An hour lost in 40 years? If we keep up at this rate, we’ll be down to less than four hours a night by the end of the century. And very, very cranky.

So where's all this sleep gone to? And why are we losing it?

Modern technology, which seems particularly adept at messing with our sleep schedules, is certainly a large part of the problem. Smartphones, tablets and computer screens all emit a bluish light; great for saving power (most energy efficient CFLs and LEDs burn blue, as do the backlights of most screens), but also just right for disrupting our body clocks. “The lights on these electronic devices are colored like enriched moonlight,” says Charles Czeisler, the director of Harvard Medical School’s Division of Sleep Medicine. These blue lights drastically suppress the production of melatonin, the hormone that controls the body’s day-night cycle. So reading in bed with an iPad, he says, or any other backlit device, makes it harder to fall asleep at night and makes you more tired the next day.

Shifting all the blame for our sleep problems onto blue light, however, might be disingenuous. The bigger problem might be that we've created and now live in a world where stimulation doesn't stop when the sun goes down—thanks, Tom!—and it's making us all addicts. Research shows that every time we check our email, Twitter feed or Facebook timeline and find a new piece of information, we get a shot of dopamine—a chemical our brains release to simulate pleasure.

"We eventually associate texts, Twitter [and] Facebook with the promise of instant gratification," says Kathy Gill, a researcher at the University of Washington who is an expert in human-computer interaction. The temptation to get that quick dopamine shot can be ignored through willpower, says Gill, but willpower's at an all-time low when we haven't gotten enough sleep. Hence the cycle of sitting up in bed, listlessly refreshing our email (a recent Pew study found that 83 percent of millennials sleep with their phones nearby) even when it's way past our bedtime and we really should put our computers and phones down. And our head down on a pillow.

In our efforts to feed the dragon, the quest to eliminate sleep has veered toward the surreal. Once confined to coffee and tea, caffeine is now showing up in topical sprays that promise the rush without the crash, soap that says it'll give you a buzz in the bath, stockings from Australia that keep you perky and (supposedly) eliminate cellulite and toothbrushes that wake you up while cleaning your teeth. Not to mention the plethora of food products that now contain caffeine: Beer, marshmallows, "perky jerky," lollipops and bottled water are just a few examples.



Millennials are the most sleepless generation, with only 29 percent of those between the ages of 18 and 33 saying they regularly get sufficient sleep. Credit: Getty

Seeing a public that's gobbling up all the caffeine it can find, ambitious creators of recreational stimulants are now raiding the pharmacopoeias for products, repurposing medicines and dietary supplements (methylsynephrine! creatine!) as additives to keep-awake colas. The popular energy drink Red Bull turned taurine, a formerly obscure

amino acid found in the tissue of animals, into a household name and a billion-dollar global business.

Meanwhile, the military is going straight to the brain in search of wakefulness: It is researching a process called transcranial direct current stimulation (tDCS), which more or less zaps the brain with electricity, in the hope that it will keep soldiers constantly at the ready. Andy McKinley, an in-house researcher for the U.S. Air Force, helped publish a study on the phenomenon. “When we kept people up for 30 hours, we found that tDCS improved their vigilance performance twice as much as caffeine, and the effect lasted twice as long. Caffeine lasted two hours, tDCS lasted about six.” For the sleep-unhappy public, unregulated and unapproved tDCS-applying devices have already found their way onto civilian markets.

So have large quantities of modafinil, a powerful stimulant used extensively by the military during the recent war in Iraq. Modafinil, marketed in the U.S. as Provigil, was originally designed to treat sleep disorders like narcolepsy. But since the early 2000s, it’s been the drug of choice for Wall Street execs and other power users seeking an afternoon boost. Off-label use rose by more than 15-fold from 2002 to 2013, according to a study published JAMA Internal Medicine.

For those looking to sleep less without drugs or military tech, there’s the “Uberman” sleep schedule: 20 minute naps taken every four hours. That’s just two hours of sleep in every 24 hours. Uberman is based on the theory that while humans experience two types of sleep, we only need one of those to stay alive. Rapid eye movement (REM) sleep is the stage in which we dream, and it also has been shown in lab tests to be critical to survival: Rodents deprived of REM sleep die after just five weeks. Then there is non-REM sleep, which itself is broken down into four separate stages. One of those is short wave sleep (or SWS). Scientists aren’t really

sure what function SWS serves, and Uberman advocates argue that it may not be critical to survival at all.

We spend only 20 percent of our sleeping time in REM sleep, and, usually, we need to work our way up to it, going through non-REM sleep first. But according to the Polyphasic Society, a segmented-sleep advocacy group, that's a waste. They say the Uberman and sleep schedules like it can force the brain to reconfigure its sleep cycle to avoid the non-REM sleep and jump straight into REM, saving a handful of precious, precious hours every day. The disadvantage? Physical stress, even to the point of lifting heavy objects, can cause Uberman sleepers to unexpectedly "black out."

Uberman advocates are only a small subset of the many movements that today seem to be waging a war on shut-eye. Despite the conventional wisdom of eight-hours-of-sleep-to-be-healthy, in recent years, CEO testimonials, helpful life-hacking tips and even some scientific studies have tried to convince us we need only five hours of sleep to be healthy, happy and successful.

Writer Douglas Haddow has a theory why: Time isn't money. Time awake is money. In a recent article for Adbusters, Haddow argues that the reason we sleep less today is because "sleep is the enemy of capital." While we're waltzing with the sandman, we can't do anything productive and, unlike in our leisure time, we can't even consume (and pay for) the products others make. It's not quite clear what's happening in our minds during nap time: Theories range from storing memories and restructuring the brain to simple energy conservation and immune system restoration. But whatever we do, we certainly aren't buying extra lives on Candy Crush or writing articles for Newsweek. Sleep is perceived to be the enemy of efficiency: inescapable wasted blocks of time that can't be converted into anything of broader use to society.

Entrepreneurs and capitalists have known this forever, of course. The growth in popularity of coffee and tea during the Industrial Revolution was, as Tom Standage argues in The History of the World in Six Drinks, tied to the working hours and conditions brought on by that revolution. In the early days of factories, owners, Standage argues, saw what the long hours were doing to their employees' sleep. But instead of offering more time in bed, they'd give them free tea and reap the reward: "Tea kept workers alert on long and tedious shifts and improved their concentration when operating fast moving machines," he writes. "Factory workers had to function like parts in a well-oiled machine and tea was the lubricant that kept the factories running smoothly."

It's worse today. Even those of us who would never check our email at midnight now live in a world where being on call 24 hours a day is commonplace. In 1992, Juliet Schor, author of The Overworked American, made headlines by revealing that U.S. citizens worked, on average, a month more in 1990 they did in 1970. Since then, the numbers have gotten worse. From 1990 to 2001, Americans added another full week to their working year: That was 137 hours longer than the Japanese, 260 hours longer than the British and 446 hours longer than the Germans, according to a report put out by the United Nations' International Labor Organization. Fast-forward to today: The Bureau of Labor Statistics says Americans are working longer hours than at any time since statistics have been kept.

It also bears noting that nearly 7 million Americans are currently stringing together part-time jobs: That's 3 million more than in 2007, when the Great Recession began. These people are likely to have erratic and often inconvenient work schedules; not exactly a recipe for getting proper R&R. Shift workers, in particular, have it tough: In December 2014, the Health Survey for England found that in the U.K., those who worked outside the 12 hours between 7 a.m. and 7 p.m. were substantially "sicker and fatter" than those who worked

daytime hours. A 2014 study published in the Journal of Occupational and Environmental Medicine found that shift work substantially increased the risk of dementia.

Again, millennials seem the most vulnerable: 40 percent of young people work part-time, contract, temp or onetime jobs, with more than half living paycheck to paycheck, according to the 2014 Millennial Study conducted by Harris Poll on behalf of Wells Fargo. The Health Survey for England found that 16- to 24-year-olds were the demographic most likely to be stuck doing shift work. And a 2014 study by the American Psychological Association found that of the present generational groupings —millennials, Gen Xers, boomers and mature—millennials were by far the most stressed, and reported the highest rates of "feeling sluggish or lazy" and "having trouble concentrating on things they need to do."

Millennials are shaping up to be the most sleepless generation yet. While Generation X reports sleeping the fewest hours per night, millennials report the poorest habits: Nearly one-third of those between 18 and 33 say they can't sleep because they are "thinking of all the things they need to do or did not get done," and a similar number reports not sleeping at least eight hours a night because "they have too many things to do and not enough time." Compare that to only 19 percent of Gen Xers and 13 percent of baby boomers.

It's no surprise that energy drink manufacturers see youth as their primary prey. "Nobody ever wishes they'd slept more during college," says one Red Bull tagline. And marketing to our overstressed, underslept youth has paid off big time: Globally, the energy drink market's now worth $27.5 billion, and energy drink consumption has increased 5,000 percent in the U.S. since 1999—just when those millennials were starting to enroll in college.

Today's youth are also at tremendous risk for long-term, sleep-related health impacts. Sleep-related disorders are on the rise, creeping upward among older workers and becoming staggeringly common in young adults. We've long known that sleep is crucial to good health: Bodies subjected to sleep deprivation undergo an ugly metamorphosis until they are in many ways fundamentally different from their sufficiently-slept counterparts. A study published recently in Proceedings of the National Academy of Sciences (PNAS) showed that chronic sleep deprivation caused "shifts" in the expression levels of more than 700 genes. "Many of these [genes] are related to inflammation and immune and stress response, and overlap with the program of gene expression that is generally associated with high stress levels," explains Malcolm von Schantz, a researcher at the University of Surrey who helped conduct the PNAS study.

Sleep loss has tremendous cognitive consequences: Dozens of studies have connected lack of sleep to deficits ranging from poor insight formation to diminished working memory. Chronic sleep deprivation is also associated with increased mortality and especially obesity, diabetes, cardiovascular disease and impaired cognitive function, says von Schantz. REM sleep in particular is needed for maintaining brain cells: "Brain cells are some of the few cells in our bodies that we retain throughout our lives," says Czeisler. "We store our memories, and through their complicated architecture, they are difficult to replace." Sleep is when toxins accumulated by the body get flushed out of the brain—including big-name baddies like amyloid beta, the plaque that, if it builds up, eventually causes Alzheimer's.

With all the talent we've got working on keeping us up later and later, there's a chance one of the burgeoning "wakefulness" treatments will solve corporate America's sleep problem without ruining our bodies and minds. But even if it turns out that zapping our brains or sleeping two

hours of every 24 over the long term is completely safe (assuming we don't, say, do any weightlifting), we can't keep cutting down on sleep forever. We need to sleep some or eventually we'll die.

One solution is to make a trade: What if we could cram 24 hours of work into 16, and use the leftovers to get some rest? Plenty have made that bargain by using "smart drugs": Ritalin, Adderall and non-FDA approved nootropics—cognitive enhancers like Piracetam and Oxiracetam. If current research can be believed, smart drug use among students has become an epidemic: In the U.S., 18 percent of Ivy League students have used cognitive enhancers. Similar numbers of smart drug use has been seen among students in Switzerland and the Netherlands.

Sadly, in many ways the use of smart drugs is a terrifyingly rational reaction to the parallel demands of "do more" and "sleep more"; unlike coffee, Coca-Cola or modafinil, smart drugs are thought to increase efficiency without robbing sleep. Poppers of Piracetam don't have to worry about crashing, burnout or ominous future health risks; they can meet all the demands of daily life while still sleeping that blessed eight hours.

But do we really want an entire society running on smart drugs to keep up with our self-inflicted rat race? Though the health risks associated with the use and abuse of smart drugs haven't been extensively studied, a 2014 study published in Frontiers in Systems Neuroscience indicates that long-term use of cognitive enhancers may decrease brain plasticity—especially in younger users. In other words, the cost of short-term productivity may be long-term creativity, adaptability and intelligence.

There are also some thorny ethical issues to navigate. Anjan Chatterjee, a professor of neurology at the University of Pennsylvania, has written extensively on what he calls "cosmetic neurology": the use of smart drugs to enhance work performance. He says we may be headed toward an

"arms race of accomplishment," where the haves (those who can afford smart drugs and are willing to take them) will push out the have-nots (those who can't, or won't). And, as with any arms race, it has the potential to continue until it reaches dangerous extremes.

As millennials move from college into the workforce, their desire to beat back sleep is coming with them. The only real solution might be to make fundamental alterations to our work environment. In some places, change is already afoot. Germany has banned after-hours emails to government workers; a law passed in Brazil in 2012 says workers who have to take calls or emails from employers after work can charge their bosses overtime. In the U.S., a few progressive companies have taken the lead; The Huffington Post has installed nap rooms in its offices, while Treehouse now mandates four-day workweeks.

These efforts might be good for everyone involved. It turns out, according to a paper published by the European Foundation for the Improvement of Living and Working Conditions, that productivity at work is highest when people work around 30 hours per week. And according to a 2010 study published in the journal Cognition, even short breaks at work—like, say, naps—increase engagement with work substantially. These countries, and companies that follow the science to buck the trend of "sleep less, do more" are beginning to recognize that sleep is more than just wasted time. It's time we all wake up and recognize that sleep is a fundamental human need.



Bas Czerwinski/AFP/Getty

GEERT WILDERS: THE 'PROPHET' WHO HATES MUHAMMAD

GEERT WILDERS IS EUROPE'S MOST NOTORIOUSLY ANTI-MUSLIM RADICAL. HE MAY ALSO BE HOLLAND'S NEXT PRIME MINISTER.

Less than 24 hours after the recent terror attacks in Paris, I caught a train in Amsterdam bound for the Binnenhof, the elaborate lakefront complex at The Hague and home of the Dutch Parliament. I was there for a hastily arranged

meeting with Geert Wilders, a veteran member of the House of Representatives and Islam's arch-nemesis in Europe.

Security was tight that afternoon. Twice on the labyrinthian route to his office, I emptied my pockets, walked through metal detectors and watched as guards dug through my camera bag. Behind the key card-controlled door to his office, I was a little surprised to find Wilders, alone and standing behind his desk.

No fan of understatement, Wilders wore a shiny black Armani suit and a bright green tie. But it was his trademark platinum-blond pompadour that stood out, a haircut that many in the Netherlands compare to Donald Trump's rat's nest. Wilders may look just as cartoonish as The Donald. But unlike Trump, he's a legitimate force in politics. For nearly a decade, he's served as the leader of Holland's anti-Islamic political party, and he regularly uses his platform to denounce not only violent jihadists but all of Islam.

This stance has made Wilders a target for Muslim radicals. Death threats regularly arrive at his office, so seeing him sitting in a leather chair without armed guards, even behind so many checkpoints, is a bit unsettling. When I ask him how he's doing, he raises his eyebrows and answers: "Surviving."

It's an understandable response for a guy who has spent the better part of a decade wearing a bulletproof vest and being shuttled between safe houses to avoid assassination. "I'm not in prison," he says. "But I'm not free, either. You don't have to pity me, but I haven't had personal freedom now for 10 years. I can't set one foot out of my house or anywhere in the world without security."

Wilders's name is on the same Al-Qaeda hit list as Stéphane Charbonnier, an editor who was shot and killed during the jihadist assault on Charlie Hebdo, the French satirical magazine, that left 12 dead earlier this month. The massacre, along with the subsequent killings at a kosher supermarket in Paris, was a tragic day for the France. But

for Wilders, it only added to his appeal. Since the attack, his Freedom Party has surged in national polls. It was already the most popular party in Holland, but if the 2016 parliamentary elections were held today, he'd pick up 31 seats out of 150, more than double his current figure.

If he found the right coalition partner, Wilders could even become Holland's prime minister, a once unthinkable prospect. Ten years ago, his proposal to ban the construction of new mosques in the Netherlands was mostly seen as the ravings of a fearmongering extremist who compares the Koran to Mein Kampf. Now reporters call Wilders a "populist," and they no longer dismiss his xenophobic rants as rubbish.

His consolidation of power here isn't a foregone conclusion, but Wilders's growing popularity in Holland is emblematic of a larger trend: Europeans are becoming increasingly hostile to both native-born Muslims and the recent wave of immigrants flooding across their borders. Islamophobes are burning mosques in Sweden, marching by the tens of thousands in Germany and ceding more and more control to those politicians who speak the loudest against the Muslim faith.

Wilders insists he derives no pleasure from his newfound influence, but in the hours after the Charlie Hebdo shootings in Paris, he tweeted "This is war" to his 380,000 followers. By war, he tells me, he means a war with all of Islam. "The Islamification of our society is what's causing this," he said of the assault on Paris. "And it's all inspired by the Koran."

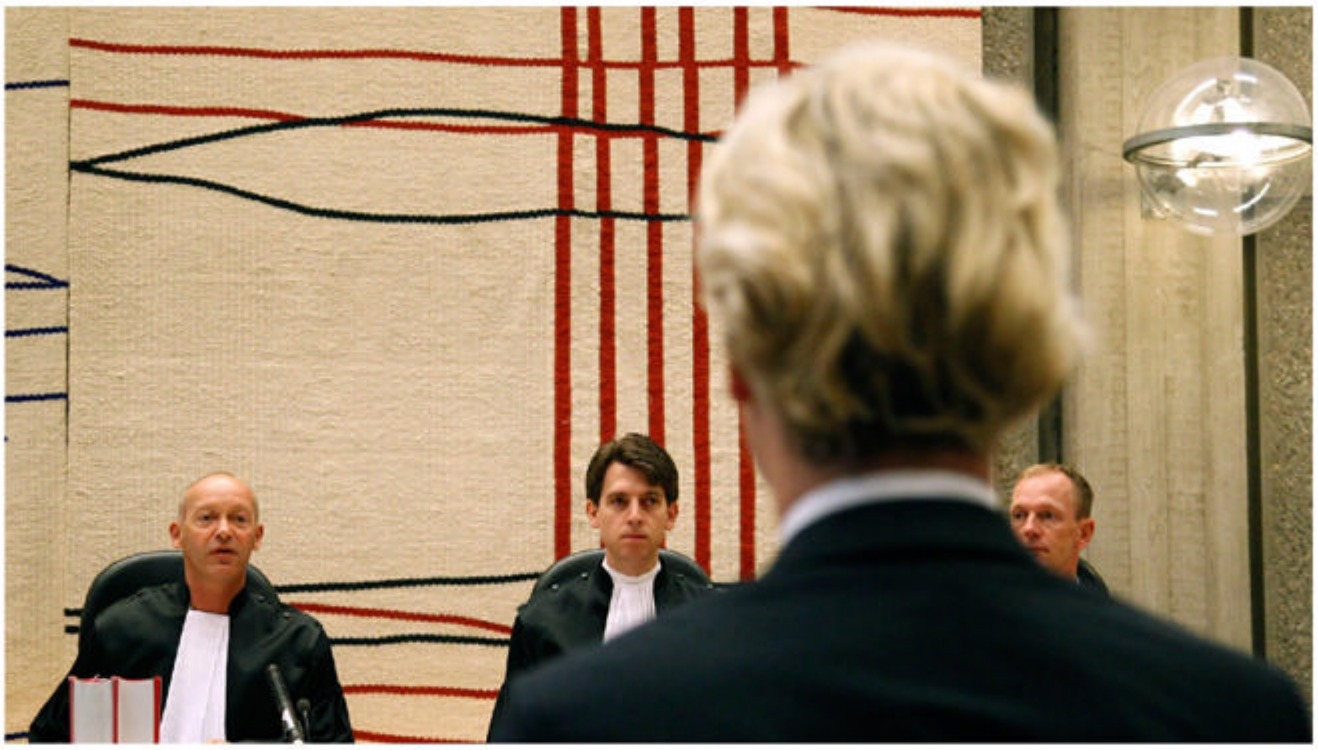
Wilders clearly knows that this is his moment, his chance to waggle his finger and proclaim "I told you so" to European politicians who haven't, in his view, taken the threat of terrorism seriously. As he puts it, "They refuse to define the elephant in the room, which is Islam."

DYED HAIR, DISGUISED ROOTS

Wilders will tell you that it's about the religion, not the people; that he hates Islam, not Muslims. But as he addressed a crowd in The Hague last March after a successful showing by his party in local elections, he got a little more personal. Flanked by two bodyguards, he walked to a small podium as "Eye of the Tiger" played on a cheap PA system, to scattered cheers. "I ask all of you," he said, waving his finger at the crowd, "do you want in this city, and in the Netherlands, more or less Moroccans?" His audience gleefully chanted, "Less! Less! Less!," to which Wilders replied with a smile, "Then we will arrange that."

The comments earned Wilders a comparison to Joseph Goebbels, the Nazi propaganda minister who in 1943 asked a crowd of Germans if they were ready for "total war." (Their response: "Yes! Yes!") Not long after Wilders addressed that crowd, a local prosecutor filed charges against him for hate speech. He faces a trial this year.

Wilders insists he did nothing wrong and said nothing new that day. His party's official platform implicitly advocates "less Moroccans" in the Netherlands by halting emigration from Islamic countries, promoting a voluntary exodus of Muslims (back to their native lands) and expelling Moroccans who commit crimes on Dutch soil. "Eighty percent of the Dutch jihadists who go to Syria are Moroccans," he says. (Other experts think the figure is slightly lower.) "We have an enormous problem with Moroccans; everybody has known this for 10 years."



Presiding judge Jan Moors, left, speaks to Dutch anti-Islam politician Geert Wilders during his trial in Amsterdam, Netherlands, Oct. 12, 2010.

Credit: Jerry Lampen/Reuters

This sort of racial rhetoric regularly earns Wilders comparisons to fascists, but he remains uncowed. “The biggest disease we have faced in the last decades in Europe is cultural relativism, the idea by liberals and leftist politicians that all cultures are equal. They are not,” he told me. “Our culture, based on Christianity, humanism and Judaism, it’s a better culture. We don’t settle things with violence—well, sometimes we do, but mostly we don’t. Cultural relativism has made it so people don’t know who they are anymore.”

And who is Wilders? Born in the southeastern Holland town of Venlo 100 miles from Amsterdam in 1963, he’s the youngest of four children. He was raised Roman Catholic but has since left the Church and calls himself agnostic. The son of a printing company director, Wilders studied at the Netherlands’s Open University and traveled extensively in Israel and throughout the Arab world during and after his compulsory military service in the Dutch Army.

At 17, he lived in the Jordan Valley, a few miles above Jericho, and while he was “a teenager, more interested in Israeli girls and beers,” he decided that Islamic countries

were dysfunctional and violent, and began to see Muslim immigrants as a destructive force in Europe. “I’m not against immigration because I believe all the people who immigrate are bad people,” he says. “But they bring along a culture that is not ours. Islam is not there to integrate; it’s there to dominate.”

As Wilders grew older, he found new reasons to hate Islam. In the 1990s, he ventured into politics as a speechwriter for the center-right Dutch Liberal Party, under the tutelage of Frits Bolkestein, the party’s leader and an outspoken opponent of mass immigration. Wilders was elected to the Utrecht City Council in 1997 and joined the parliament a year later. In Utrecht, he could afford to live only in the city’s poorest—and majority-Muslim—neighborhood, Canal Islands.

He was an outspoken opponent of Islam then, too, and his neighbors knew it. After work each day, he says, he parked two blocks from his flat and walked home, hoping to avoid having his car vandalized. Often, he says, that walk turned into a frantic run, as Muslims recognized and chased after him. Once, in Utrecht’s center, Muslim “street terrorists,” he says, pepper-sprayed him, spit in his eyes and stole both his money and passport.

“I’m an elected politician,” he says. “If you don’t agree with me, vote for somebody else. What did I do, except for expressing my views?”

Despite what he told me about his time in Israel and Utrecht, some critics say Wilders’s antipathy for Islam runs deeper. Dutch anthropologist Lizzy van Leeuwen has been researching the origins of Wilders’s political philosophy since 2009, while working on a book about the colonial history of Holland. She discovered some material in the national archives and published an article later that year that revealed a secret Wilders had long kept hidden from the public eye: his Indonesian roots. Van Leeuwen is of similarly mixed blood, she said, and she was always

bewildered at her mother's support of Wilders and his anti-Islam positions. At the close of the colonial era, Dutchmen were driven from the Indies by Muslims, many of them settling in places like the Netherlands, so when van Leeuwen discovered Wilders' Indonesian heritage, she grew curious.

"There's lots of bitterness among these old generations of colonial migrants," she says. "That's why Geert Wilders is a hero to them. He knows why people don't feel comfortable in this society of migrant groups."

Van Leeuwen's mother hides Wilders's books when her daughter comes now, but she is among many with an Indonesian background who admiringly call Wilders a "Branie," an Indonesian term for a man with chutzpah, with the balls to say what he thinks. "They were chased from their beautiful paradise in the sun," the researcher told me. "Now here's this guy saying it too, after everyone has been silent for 50 years, and he's their hero."

Van Leeuwen discovered that Wilders's grandfather was a high-ranking bureaucrat in the Dutch colony of Indonesia. Johan Ording, she says, went bankrupt several times in the Indies. He was fired while on holiday in Holland in 1934, warned not to return to the colony and later denied a pension. Mired in poverty, he and his family were forced back to the Netherlands in the middle of a harsh Dutch winter.

"You can call it cheap psychology to link these things, but I think this has meaning for somebody like Geert Wilders," Van Leeuwen says. "He is lost."

On some level, Van Leeuwen says, whether Wilders believes it or not, he's blaming Muslims for what happened to his family and seeking retribution.
"He wants to go back to the way the borders were drawn before the war. Before decolonization," she says, referring to the period before Indonesia claimed its independence and was still a Dutch colony, called the Netherlands-Indies. "He once had serious plans to return parts of Belgium to

‘Greater’ Holland.” He dyes his hair, she thinks, to disguise his Indonesian roots.

Wilders has responded to van Leeuwen’s findings only once, in a television interview, saying her thoughts about him were “twisted,” and he insists to me that he’s not seeking revenge against anyone. But as he gestures emphatically from the safety of this fortified office a day after the tragic massacre in Paris, it’s clear Wilders isn’t the least bit mournful. He’s fired up.

HOLLAND’S TEFLON DON

In November 2004, Dutch filmmaker Theo van Gogh was biking to work in central Amsterdam when a Dutch-born Moroccan named Mohammed Bouyeri attacked him, shooting him once and stabbing him several times. The filmmaker stumbled across the street, and Bouyeri followed, shooting and stabbing him again before slitting van Gogh’s throat with a butcher knife, then lodging the knife in his chest with a letter attached to it. The attacker fled on foot, but was eventually arrested and sent to prison.

Van Gogh had been receiving death threats ever since he made an anti-Islam film called “Submission.” But he wasn’t the only enemy of Muslim extremists in Holland. His partner on the film, ethnic Somali lawmaker Ayaan Hirsi Ali, also received death threats, as did a rising politician she collaborated with on a letter in 2003 that called for a “liberal jihad” against Islamic radicalism: Wilders. A few months later, grenade-wielding attackers staged an hour-long siege of a building in The Hague, in an attempt to murder both Wilders and Ali.

Since then, Wilders and his Hungarian-born wife, a former diplomat to the Netherlands, have lived under constant guard, sheltered in a safe house with a panic room and driven to and from home in an armored police vehicle. When I met him at the Binnenhof, I couldn’t tell if he was still wearing a bulletproof vest. But his office is strategically positioned deep in the parliament building so

would-be attackers can approach it only from one corridor. Beyond that, Wilders wouldn't comment on what his security measures include. "That would make me only more vulnerable," he says. "Sometimes [the security is] more, sometimes it's less. Now it's certainly not less."

It's hard to know to what extent that attack affected Wilders's politics, but it clearly was a factor. From 2000 to 2006, he moved increasingly to the right, calling for a ban on head scarves in public and the sale of the Koran in general. A year later, he left his more mainstream party over its support for Turkish entry into the European Union and formed the Freedom Party, which surprised the country by winning nine of the 150 seats in the parliament.

"Try to imagine being attacked by a group of ideologically or religiously motivated people," says Meindert Fennema, a political scientist at the University of Amsterdam. "People tend to underestimate the fact that he is permanently under protection."

Wilders's rise has continued over the past nine years, and as he shored up political power, he also mastered the art of media manipulation. In 2008, he posted online a 17-minute film called Fitna, using excerpts from the Koran and statements of radical Muslims to paint a dark picture of Islam. The next year, the British government banned Wilders from visiting the United Kingdom to show his film, and prosecutors in Holland charged him with inciting hatred and discrimination (a Dutch court later dismissed the charges). Both the film and the ban generated headlines across the globe. In 2010, in perhaps his most well-known publicity stunt, Wilders visited Ground Zero in New York on the anniversary of the September 11 attacks, then spoke at a rally against the construction of an Islamic community center near the site.

"He's definitely playing the media," says Anno Bunnik, a Ph.D. fellow at Liverpool Hope University in the U.K., who specializes in politics, extremism and intelligence in the

Middle East. “His positions are so polarizing…. Some say, ‘Yes this guy is right,’ and others say he’s a total menace, and almost everything he says is automatically picked up.”

'THE FIGHT WITH ISLAM HAS NO BORDERS’

For all the stunts, Wilders also owes his success to a nuanced, Tea-Party brand of Islamophobia. He’s the first anti-Islam politician in Europe who doesn’t come from an extreme right, nationalist background, says Fennema. He’s liberal on issues like gay rights, which makes him appealing to a wider cross section of Europeans and helps him ally with a budding legion of politicians bashing Islam.

In recent years, politicians on both sides of the spectrum have employed Islamophobia as a rallying tactic. In France, Marine Le Pen’s anti-immigrant Front National party is now the country’s third largest. In Denmark, the Danish Folk Party works actively to prevent a “multi-ethnic society” by lobbying against immigration. Not unlike America’s Tea Party and the Occupy Wall Street movement, this new breed of “populists” are critical of the political elite and believe government is no longer listening to the people. Experts say this combination of populism and nativism is a fruitful one because it provides a bogeyman for growing fears about globalization: the job-stealing, maybe even terroristic immigrant, and the established politician who shelters him.

In the past, Wilders tried to distance himself from Europe’s nativist movement and instead focused his anger on Islam, says Matthijs Rooduijn, a political science professor at the University of Amsterdam. But in 2013, he decided to form an alliance with Le Pen in an attempt to cobble together a coalition to influence the European Parliament.

Wilder says he’s convinced that if something isn’t done to stop the spread of Islam across the West, our whole way of life will vanish and we’ll all live in Muslim-ridden slums, assaulted for our Christianity and love of

free speech. To make his case, Wilders regularly takes politicians from around the world on tours of majority-Muslim neighborhoods in the Netherlands, offering them a glimpse of their future if they don't beat back Islam.

Despite his antipathy toward Muslims, Wilders is clear that he doesn't advocate any kind of violence, and he insists he isn't responsible for attacks on peaceful and law-abiding followers of Islam. "If you set fire to a mosque, you're a criminal and I hope you go to jail for years," he says. "We should be tolerant to people who are tolerant to us. We should be intolerant to people who are intolerant to us."

How to stop the intolerance? Wilders has some ideas: immediately halt all emigration from Islamic countries, allow anyone who wants to leave the Netherlands to wage jihad overseas to leave, and pull out of the agreement with 25 other European countries that allows travelers to pass freely from one nation to the next. It's hard to say if these proposals are more likely to gain traction in the wake of the Charlie Hebdo attack. His party has performed well in opinion polls over the past 10 years, but that hasn't always translated to gains in the parliament. Even if his party does lock down the largest blocs of seats in the next election, he would have to convince another group to form a coalition in order to acquire any real sway. And because his views are so extreme, most political observers here find that unlikely.

"Other parties have said, 'We don't touch him, even if he is the biggest,'" Wilders acknowledges. "But I think anything is possible."

Not everyone is so sure Wilders will continue to have such a large audience. On the surface, the attacks in Paris may give him an easy chance to make a point, but van Leeuwen hopes that Wilders's grandstanding will backfire, that people will see it as a cheap attempt to seize power over the bodies of dead journalists. "There's a risk in talking the way he does in this moment," she says. "It's too obvious, too easy to declare all Muslims extremists and terrorists.

Too many people will see through that. He has to be very careful."

In fact, many think his status in The Hague is increasingly secondary, that his bully pulpit may eclipse his day job. It's his notoriety, the attention he gets when he speaks out against Islam and immigrants, that could have a far greater impact on the ongoing debate about immigration here. That is perhaps why he seems so eager for his hate speech trial to begin; why he gave several interviews immediately after the Paris attacks; and why he's planning a trip to Australia, he says, to help right-wingers in that country start a political party modeled after the Freedom Party.

"The more famous he gets," Rooduijn says, "the less he needs to be a politician anymore."

Wilders is taking his message global. "This is not a national fight," he says. "The fight with Islam has no borders. The war has no borders. The fight for freedom has no borders."

As Wilders escorts me out of his office, I notice the life-sized portrait of Winston Churchill hanging on the wall. Churchill is one of Wilders's idols, in no small part because of his criticism of Islam. Next to the painting is another figure Wilders clearly admires. It's a small, cartoonish sculpture enclosed in an acrylic case, a gift from some of his colleagues after a recent electoral victory. The sculpture is of himself.



Mohammed Huwais/AFP/Getty

YEMEN IS TEARING ITSELF APART OVER WATER

AS REBELS STORM THE PRESIDENTIAL PALACE, AL-QAIDA IS INCREASING ITS STRANGLE-HOLD ON A COUNTRY DYING OF THIRST.

The ancient city of Sana'a is one of the oldest continuously-inhabited cities on the planet. Its astounding street markets, almost unchanged since the time of the Prophet, used to attract hordes of Western tourists. Not any more. The risk of kidnap has become too great; the

British Embassy advises its nationals to leave the country if possible, and if not, to keep any movement around the capital to an absolute minimum. Walking anywhere in the city these days raises hairs on the back of the neck.

The kidnap of foreigners, usually by hill tribes seeking leverage over the Sana'a government, has a long history in Yemen. It used to be considered bad for business to harm the victims, who were traditionally released unhurt – that has changed too. In a sign of the resurgence of Islamic extremism in the region, kidnappers have started selling their victims to al-Qaida and abducted foreigners increasingly end up dead.

For the last year or more, the West's fear and attention has been focused on the emergence of Isis in Syria and northern Iraq. The Islamic State's ideology, the brutality of its methods, and the success of its territorial campaign have eclipsed al-Qaida, the movement that spawned Isis, but which also formally disavowed them a year ago. Since the death of Osama bin Laden, al-Qaida has seemed divided, directionless; a diminished force.

Its franchise in Yemen, al-Qaida in the Arabian Peninsula (AQAP), was perhaps best known abroad for thwarted attacks on the West, such as that of Umar Farouk Abdumutallab, the so-called underpants bomber, who tried to blow up a plane over Detroit in 2009, or the cargo-planes bomb plot of 2010. But with the group's claim of responsibility for the recent attacks in Paris, however, al-Qaida appears to have made a dramatic international comeback.

In truth, Yemen has always been an al-Qaida stronghold. As the ancestral homeland of bin Laden himself, Yemen is arguably where the movement was born. The first ever al-Qaida attack took place in Yemen, when US Marines staying in two hotels in Aden were bombed in 1992, and, despite some setbacks, al-Qaida has never been extinguished in Yemen since. In 2010, the CIA declared AQAP the most

potentially dangerous franchise on the planet. In 2011, the year of Yemen's Arab Spring, AQAP exploited the revolutionary chaos by taking over the southern province of Abyan, which they declared an Islamic Emirate. It took the Yemeni military a year to drive them out again.

In recent times AQAP's targets have been mostly domestic. A suicide bomb attack on a Parade Day rehearsal in May 2012 killed 120, and injured 200 more; a horrendous assault on a defence ministry hospital in December 2013 left 56 dead; on the same day as the Paris attacks, a car bomb outside a Sana'a police college killed 37.



Flooding in the outskirts of Sana'a. Credit: Mohammad Huwais/AFP/Getty

In 2013, when a 10-month, UN-sponsored National Dialogue Conference opened in Sana'a, with the promise of a new constitution ahead of fresh elections in 2015, AQAP's prospects seemed, briefly, to dim. But then, in September, Yemen's transition to democracy was dramatically derailed when disgruntled Shia Houthi tribesmen from the north of the country first surrounded and then took over the capital. With the Houthis continuing to tighten their grip – Houthi fighters today overran the Presidential palace after fierce fighting in Sana'a – all bets on a 2015 election are now off.

Instead, with rumours swirling that the Houthis are covertly supported by Iran, the prospect of an Iraq-style sectarian conflict beckons. Renewed instability is a boon to AQAP, who have always fought the 'apostate' Shia Houthi, and have positioned themselves as a logical rallying point for Sunni resistance. Yemen no longer looks like the model of peaceful transition to democracy that it did a year ago, but more like the next Middle East nation to spin violently apart.

Terror's Return

Al-Qaida has a long track record of exploiting sectarian differences. In Yemen, though, it has developed another, more surprising, method of winning tribal hearts and minds: its members have become champion exploiters of the country's chronic water shortage. (The country is one of the five most water-stressed in the world, with just 86 cubic metres available per capita per annum, according to the World Bank. Even drought-prone Somalia has 572 cubic meters available per capita. The UK, by contrast, has 2,262 cubic metres).

In regions south and east of Sana'a, where many communities have been ignored for years by the central government, AQAP has won significant support not just by providing villagers with water, but also by helping them to dig wells and install other vital water infrastructure. Sharia, the Islamic law that al-Qaida is determined to impose, means, in one of its many possible translations, "the path to the water hole" – a metaphor for spiritual salvation with obvious appeal to followers of a religion that originated in the Arabian desert. AQAP is trying to make that metaphor a reality.

This activity goes far beyond social work. In an impoverished farming nation, where over half the population still lives off the land, access to water, and the ability to irrigate crops, is often a matter of life or death. Even government officials estimate that local disputes over land and water already lead to 4,000 deaths every year.

Sana'a is badly affected, too. Supply is already so poor here that municipal taps function on average only once a month. Its 2.6 million residents have long relied on rooftop cisterns filled with water expensively tankered in from elsewhere. According to a study commissioned by the World Bank, the city could be unsustainable as soon as 2019. Unless action is taken soon, Sana'a's residents may be forced to leave the city to wither and die. The wars of the future, it is often said, will be fought not over oil but over water. Yemen offers us a glimpse of the coming apocalypse.

Worse, AQAP is looking to export its water "weapon." In a document discovered by the Associated Press in 2013, addressed to AQIM (al-Qaida in the Maghreb), AQAP suggested trying to win locals over "by taking care of their daily needs like water. Providing these necessities will have a great effect on people, and will make them sympathise with us and feel that their fate is tied to ours." AQAP has identified the provision of water and its infrastructure as a key means of doing this. The United States' former Enemy Number One in the region, the Islamist ideologue Anwar al-Awlaki, who was killed by a US drone strike in 2011, was the holder of a BSc in Civil Engineering from Colorado State University.

AQAP may also have learned from the mistakes of other AQ franchises, such as their neighbours in Somalia, al-Shabaab. The greatest reversal suffered by that organisation came during the southern Somali drought of 2011, which it dealt with by asserting that it existed only in the minds of Western propagandists. Refugees fleeing the drought zones were ordered to return to their homes and to pray for rain. Tens of thousands died as a consequence, and popular support for al-Shabaab collapsed.

Wells, Not Drones

The Sana'a government is miles behind AQAP in its appreciation of the problem. A new strategy for managing the nation's dwindling resource is urgently needed. At the

National Dialogue Conference, Yemen's tiny, beleaguered community of hydrologists lobbied hard for their sector to be made a priority – but in this year's spending round, the budget of the ministry of water and environment's National Water Resources Authority (NWRA), was cut by 70%. As Najib Maktari, a senior ministry adviser, put it: "It shows you how little importance Hadi attaches to the sector."



Farmers in Sana'a are drilling unlicensed boreholes to irrigate their thirsty qat crops. Credit: Mohammed Huwais/Natalia Koles Nikova/AFP/Getty

The vast majority of the government's resources is spent on the military, as it has been for years. There are over 400,000 men under arms in Yemen fighting Houthis in the north, separatists in the south, and al-Qaida just about everywhere. They are aided in this last campaign by US drones – though the Yemeni government does not have its own drones, it is widely believed to provide American drone operators with target intelligence. In fact, Yemenis have judged their president such an enthusiast for drone strikes that he has long been nicknamed "Drone al-Hadi." The results of these policies, very much abutted by the strong

Western support of al-Hadi's government, have ranged from ineffective to catastrophic.

Mohamed Ali al-Gauli is a schoolteacher from the remote mountain district of Khawlan. His brother and cousin were killed in a US drone strike while driving in their car and, as a reminder of the tragedy, he keeps a scrap of tailfin, complete with American markings, from the missile he holds responsible for the deaths. His brother and uncle, he insists, had nothing to do with AQAP. Their mistake had been to pick up four armed hitch-hikers in the course of a routine shopping trip.

As in Pakistan and elsewhere, the accuracy of the drone strikes used in Yemen has been called into question. A recent study by Reprieve, the New York–based human rights group, which was widely circulated on Yemeni social media, suggested that strikes aimed at 17 named men have so far killed 273 people, at least seven of them children; while at least four of the targets are still alive. "You know, those drones are very expensive," Al-Gauli observes bitterly. "Yet in our village, it takes a 2km donkey ride to fetch water from a well. If someone spent a tenth of the cost of a missile on a well for our village, maybe no-one would pay attention to al-Qaida and they would go away."

The Sana'a administration has made mistakes, but the crisis in Yemen is not all of President al-Hadi's making. At its root, say sociologists, is Yemen's extraordinary population growth, from five million in 1960, to 26 million today, to a projected 40 million by 2030 – numbers that would be a challenge to provide with fresh water even if Yemen were rich and stable. Sana'a, with a population growth of almost 7% – more than double the national rate – faces the greatest challenge. There were fewer than 20,000 people living in the city in 1910. Soon there will be three million. Desalination is not an option for Sana'a, which is both too far from the ocean and, at 2,250m above sea level, too high to make it practical. "For its size, Sana'a is

a city in the wrong place," said Brett Grist, a British former consultant to NWRA. "It's as simple as that."

Water for Drugs

Yemen's water crisis has been in pipeline, as it were, for at least 40 years. Until the 1970s Yemenis irrigated their crops as they had always done, with seasonal rainwater captured in elaborate systems of mountain terraces. Increasing demand for food as the population expanded, however, led farmers to seek a more reliable source of irrigation – and they found one in groundwater, pumped up by tubewells from beneath their feet.

The switchover accelerated with the discovery of oil in the 1970s when the government, anxious to increase agricultural production, introduced fuel subsidies to encourage farmers to drill. Without maintenance, much of the beautiful, millennia-old mountain terracing, for which Yemen is famed, was abandoned. It soon collapsed, deepening the farmers' dependence on groundwater.

The political ramifications of that decision are still being felt. There were mass protests by Houthi tribesmen last autumn over the central government's attempt to reduce those fuel subsidies which, now that Yemen's oil is running out, it can no longer afford. The Houthis, though, would not countenance the higher water drilling costs that a subsidy cut would entail. The government quickly reversed their decision, but not quickly enough to avert a coup.



President Hadi has failed to stop farmers in Sana'a from drilling unlicensed boreholes to irrigate their crops. Credit: Getty

Switching to groundwater irrigation has also been an environmental disaster. Aquifers take time to recharge, but Yemenis aren't giving them a chance. In the Houthi heartland of Sa'adah, for instance, groundwater is being extracted 12 times faster than nature can replace it. Thirty years ago, it was possible to find groundwater at a depth of 100m in the Sana'a basin. Today's drillers sometimes have to go as deep as 1,200m. The shallow, self-replenishing reserves were plundered long ago; the water now being exploited is so-called fossil water that may never be replaced.

Tens of thousands of farmers, forced from their land, have headed for the big city looking for alternative employment where there generally is none. As the Sana'a basin aquifer depletes further, this trickle of displaced farmers looks certain to become a flood.

Perhaps the biggest challenge in conserving the country's dwindling aquifers comes from what is actually cultivated on Yemeni farms. The government's intention, when it first

subsidised agricultural diesel in the 1970s, was that farms should produce food. But farmers soon found it much more profitable to grow qat, the amphetamine-like chewing leaf to which Yemen, as a nation, is addicted. An estimated one in three Yemenis, perhaps eight million people, are regular users of the drug, which, although a controlled substance in the West, is legal in Yemen and throughout the Horn of Africa. Yemenis spend, on average, between a quarter and a third of their income on qat, about $4bn a year nationally. According to one Dutch study, the qat business accounts for 16% of employment and 25% of GDP.

Qat trees are deep-rooted and thirsty, and because only the soft, leafy tops of the tree are suitable for consumption, they are notoriously wasteful to grow. Some analyses suggest that 40% of all the fresh water available in Yemen is used in the cultivation of a product that has no nutritional value whatsoever – and this in a country where more than half of all children under five are stunted by malnutrition. Yet the area of land dedicated to the cultivation of qat continues to expand by 10% a year.

Attempts to rein in the trade have all foundered due to insurmountable vested interests. The land-owning tribal sheikhs and military figures who profit most from qat farming tend also to be members of parliament and block any change. When, for example, parliament tried to discuss the import of qat from Ethiopia – a measure designed to undercut local profits, thus reducing the appeal of the crop and therefore the amount of Yemeni land dedicated to it – one MP stood up and announced: “We’ll shoot down the planes.”

“Our greatest problem in Yemen” adds the deputy chairman of NWRA, Abdulla al-Thary, is that noone ever thinks about the common good. It is always I, I, I and never We, we, we.”

The Wildcat Drillers

Private and unlicensed wells continue to be sunk at an astonishing rate by so-called wildcat drillers who own and operate a vast fleet of mobile rigs. Estimates suggest that there are 14,000 privately-owned tube wells in the Sana'a basin today, with more being drilled every day.

The under-resourced water ministry does its best, but has effectively lost the war against the wildcatters, who tend to be employees of the same influential sheikhs who control the qat trade. For example, a government programme to install supposedly tamper-proof GPS transmitters in all known rigs failed when the operators found ways to remove or destroy them. In 2012, NWRA set up a public hotline and encouraged Sana'anis to report any suspicious-looking drilling operation. But the uptake was minimal; and even when NWRA officials turned up to try to prevent an illicit operation, they were quickly chased off by tribal gunmen, or even, on one occasion, by co-opted police.

Recently, Noori Gamal, a senior hydrologist with the water ministry, heard a rumor that a wildcatter was in action in Hadda, the main downtown business district, and invited me to meet him there. I could hear nothing at first, but his experienced ear immediately detected the rumble of a deep hydraulic rotary drill. He lead me three blocks, and there it was: a tall Heath-Robinson contraption in the side garden of a private house belonging (as we later discovered) to a qat-farming, land-owning sheikh. Backed up to the wellhead, blocking the road, was a long, low truck loaded with hundreds of metres of drill pipe. The street was filled from side to side with a waist-high river of drill lubricant that oozed from the borehole, a wobbling mass of soapy white foam through which two boys were pulling wheelies on mountain bikes. Half a dozen labourers stood about, surly and staring, their cheeks distended from the lumps of qat in their mouths.

The foreman of the operation was not pleased to see us, but Gamal soon made it clear he wasn't there to try to

stop him. Obstructing a drilling operation, he explained afterwards, had become a perilous business; the sheikh who employed the foreman could manipulate the political system to have Gamal fired, or arrested, or much worse.

"I see unlicensed drilling rigs as mobile artillery batteries, and the tankers that distribute the groundwater as missiles landing in every neighbourhood," Gamal added. "I don't think that language is too strong. What we are doing to our water resource does as much damage to our country as any military campaign and the water shortage is already killing more of our people than al-Qaida ever will."

Off the Precipice

There are no easy solutions in Yemen. Last November, in co-operation with the UN and the Dutch embassy, the water ministry launched a three-year project in the Sana'a basin aimed at persuading its farmers to start conserving their resources, and to pump less groundwater. To the south of the city, meanwhile, where a large aquifer remains untapped, new municipal wells are being sunk. These and other measures can buy Sana'a some time. Yet tapping more aquifer water will only postpone the inevitable. "Yemen is like a man sliding towards a precipice," said a former water minister, Abdul-Rahman al-Eryani. "He will definitely go over the edge. The only question is when."

Not everyone is so gloomy. Some senior officials believe the wholesale change of approach to water management that the country needs is possible, and that they have time. The experience of a community of Ismaili Shia in Haraaz in the western highlands offers some hope. Fifteen years ago they decided to uproot their qat orchards – some 200,000 trees have so far been destroyed – and plant crops of comparable commercial value, notably premium coffee, for which Yemen was once famous. (The Mocha coffee bean takes its name from the Yemeni Red Sea port of that name.) The Ismailis also introduced modern drip irrigation and have begun to repair their water-harvesting terraces. As a result,

the Haraaz water table is no longer falling, and the local economy is thriving. Could this brave experiment become a model for the rest of the country?

The chairman of NWRA, Ali al-Suraimi, seems to think so. He believes that even Sana'a could be sustainable if highland farmers reduce their dependence on groundwater. "We need to repair our terraces and go back to the old ways, and to live like our grandfathers did," he says. It is an unhappy paradox, but the future of Yemen, together with its ancient capital, may depend on the ability and willingness of its people to turn back the clock.



Splash News/ Corbis

RALPH STEADMAN ON THE RIGHT TO OFFEND

STEADMAN, THE SATIRICAL CARTOONIST EXTRAORDINAIRE, REFLECTS ON THE CHARLIE HEBDO MURDERS, IN WORDS AND IN ART.

We were sitting in a bar in Aspen, Colorado, almost 20 years ago, I remind Ralph Steadman, when he first told me that he'd become a cartoonist because he wanted to change the world. It wasn't the first time he'd made this declaration and it wouldn't be the last. But it's a mission statement that seems horribly apposite this afternoon, as we sit in the living

room of his house near Maidstone, Kent, watching live news coverage from the print warehouse where Said and Cherif Kouachi, the killers of the Charlie Hebdo artists, are making their last stand.

"It is interesting that you should mention that remark today," says Steadman, "because, looking at what has been happening in Paris, I now feel that I have succeeded. I did manage to change the world, and it is a worse place than it was when I started. Far worse – an achievement I had always assumed would be impossible."

With the exception of a brief radio interview on the day of the shootings, Steadman had declined to join the throng of commentators jostling to share their opinions on the tragedy. Just as I arrived, he had spurned an invitation from a radio station in Lincoln, Nebraska. "As soon as this thing happened," he says, "the phone started ringing. I don't know why."

"Probably," I tell him, "because people perceive you as precisely the sort of . . ."

". . . bastard who might draw something that would severely displease somebody because they could not see the joke?" the 78-year-old interrupts.

It's more likely that, given his reputation for images of grotesque irreverence, typified by his illustrations for his friend Hunter S Thompson's demented novella Fear and Loathing in Las Vegas, people see him as eminently qualified to assess the splenetic defiance in the work of revered cartoonists like Cabu and Wolinski, who died in the assault. I was with Steadman when he last saw Thompson, a few months before the writer's suicide, which occurred 10 years ago next month and, as I tell the artist, I can remember the intense emotional impact that particular death inflicted on him.

"What was your first reaction when you heard about the attack in Paris?"

"I thought, 'Oh, bloody hell, this cannot possibly be true.' Disbelief. After that, I think I was in shock." Steadman explains that he heard the news from his wife, Anna, when he came in from his daily swim in the outdoor pool behind his house. "And then, as I say, the phone calls started. And I just said to myself, 'I am not going to respond to this now. I've got to let some time pass. I can't start handing down judgment on this yet.' We put the television on, as I guess most people did. We saw the hideous sight of that wounded policeman on the floor."

"Ahmed Merabet: a Muslim."

"Yes. There are so many terrible and perverted dimensions to this affair. Can you imagine if the killers were to walk in here right now? We say, 'Right. Explain why you did this thing.' And they say, 'We felt that we were being ridiculed in France.' When you think about it in rational terms, the whole thing is surreal."

"You would like to imagine that they [the cartoonists] looked in to their faces and laughed," he says. "You would like to think that they died laughing."



Steadman's original piece for Newsweek in reaction to the Charlie Hebdo Murders. Credit: Ralph Steadman

Steadman, as I remind him, is hardly unfamiliar with the power of gross and offensive imagery created with subversive intent. But the caricatures of Allah and Muhammad, I suggest, take any moral debate into rather

more complex territory than do, say, his merciless depictions of Richard Nixon, George W Bush, or Tony Blair.

"Obviously there's a long tradition of work in which satire and vulgarity collide," I suggest. "But is it always legitimate to cause offence?" The Charlie Hebdo artist I've had most contact with over the years, I explain, is the 86-year-old anarchist Maurice Sinet, known as Siné, who was fired from the magazine after contributing, in 2008, a column and drawings which had him accused of inciting hatred against Jews; the kind of editorial sanction the paper has not always extended to artists satirising Islam. You hardly need a degree in religious studies to know that depicting the prophet Muhammad as a dog (as the Swedish artist Lars Vilks did, in 2007) will cause most Muslims to take offence and, most would agree, with good reason. Does Steadman ever find himself looking at such images and thinking: what's the point?

"There can come a stage where what you are producing is just irresponsible graffiti. For which – yes – there is no point. But working as . . . I don't often find myself using the phrase 'a responsible satirist' . . . you would seek to produce something that is very funny in some way."

"Which Charlie Hebdo could be."

"Yes," Steadman replies. "It is quite reasonable for a reader to be offended. It's slightly less reasonable to enter an office armed with two Kalashnikovs and a grenade. Most people would regard that as something of an overreaction."

Steadman has an apartment in Paris, not too far from that address. He knew Georges Wolinski, Cabu, and several others of the victims. "It does bring a peculiar focus to these events," I suggest, "when you realise that there is a real, if very remote, possibility that you could have been a guest in the building that day."

"And when you imagine that," Steadman says, in a remark that curiously anticipates an interview which will

later be broadcast with Michel Catalano, the owner of the print warehouse who offered the Kouachi brothers coffee, "you find yourself wondering how you would have reacted in those circumstances. What could you possibly say? 'How can I help you? Can I get you a drink? Milk and sugar? Or would you prefer that I served as a target?'"

One of the stranger aspects of the tragedy is the way in which solidarity with Charlie Hebdo, a publication not known for its conservatism or subtlety, has been effusively expressed by the kind of people with whom its staff would have struggled to empathise, among them David Cameron, headline writers for The Sun, and Marine Le Pen, who was once represented by the paper as a pile of faeces.

Ralph Steadman, by contrast, says he struggles to find the kind of language appropriate to describe the events in Paris. "In the case of the killers," he tells me, "it's far easier to find adjectives that are inappropriate. Like 'anodyne'. And 'atheistic'. 'Apathetic'. And 'Anglican'. I'm still on the As. We could go through the whole dictionary'."



A caricature of Tony Blair. Credit: Ralph Steadman

I should probably say that I have never met a more compassionate person than Steadman before mentioning that this last remark, dark as it is, strikes us both as extremely funny. We've been talking for an hour or so and this is not the first time we've found ourselves laughing. I don't know, I tell the artist, what that says about us as people.

"Tragedy provokes different offshoots of thought," he replies. "Even at a wake, you can't keep sitting there saying, 'Oh, it's terrible you know. I feel terrible. Do you feel terrible? You must do, I know, but I can tell that you

don't feel anything like as terrible as I do'. As humans we just can't do that."

Some years ago, when we were travelling in Utah, Steadman told me that he feels interviews sometimes risk sounding like posthumous tributes. What adjectives, I asked him, would he like to see in his own obituary?

"Distasteful," he said. "Unhygienic. Truculent. Moody. Provocative towards bastards."

"How about long-lived?"

"Oh, yes. I'd like my obituary to say: 'He was very long-lived. Endlessly. We thought he'd never go away'. A pause. "And we were right: he didn't."

Since then, his painting has continued to resonate with a new, younger audience. He recently completed the artwork for a limited edition Blu-ray release of Vince Gilligan's Breaking Bad, which goes on sale next month. His distinctive labels for Jim Caruso's Flying Dog Brewery have helped turned beers such as "Raging Bitch" into globally recognised brands. And Steadman's longstanding friendship with Johnny Depp was the focal point of Charlie and Lucy Paul's acclaimed 2012 film about Steadman, For No Good Reason. "In many ways," Depp told me, "I look upon Ralph as a kind of miracle. It is just a gas to go down and see him in Kent; an incredible privilege. He really is just so gentle and so nice. And yet at the same time he is, as you know, a psychopath."

Ralph Idris Steadman was born in Wallasey and grew up in Abergele, North Wales, from the age of five. He dropped out of an engineering apprenticeship at aircraft manufacturer De Havilland after less than a year, "because I couldn't stand factory life" and went to work at Woolworths supermarket in Colwyn Bay. He began drawing seriously while completing his military service.

"I enrolled in a correspondence course," he says, "taught by Percy V Bradshaw, called 'You Too Can Learn To Draw And Earn £££s'."

His principal mentor was a highly-gifted art teacher at East Ham Technical College, Leslie Richardson, who died last month. People often struggle to reconcile the benevolence of Steadman's character with the extreme viciousness of the work. If there's one crucial impulse that drives him, I suggest, it's his ferocious detestation of the bully.

"My parents were kind people," says Steadman, "with a strong sense of the need to defend the defenceless. I was brought up to be honest by my mother and father. They were very concerned about that. They believed that honesty should be the foundation of anyone's life. That ideal was ingrained in me."

"I can't imagine you having ever been involved in a fight."

"No. I can't do it, which naturally risks putting you at the mercy of bullies. At school I can remember flapping my arms around, in some attempt at defence."

"Of course part of that awkwardness relates to physique. Had you been built like – I don't know, Johnny Weissmuller [the best known Tarzan] – you would have had a very different experience of the world."

"Undoubtedly. The thing is that, temperamentally, I'm less like Tarzan, more like Jane."

His international reputation was established in 1971 by his illustrations for Fear and Loathing in Las Vegas, in which Thompson took the Wodehousian bachelor's blithe and incautious attitude to alcohol and extended it to LSD and munitions. Thompson brought the hubris of a delinquent rock guitarist to the normally sedate world of American letters.

The two men's relationship was a curious one to say the least. The softly-spoken Englishman contributed generosity, patience and good-humour. Thompson responded with theatrical abuse that sometimes crossed over into real meanness. I saw him reduce Steadman to tears on two occasions, and that was just while Thompson was still alive. And yet if, like Steadman, you appear to produce your best work when anguished, Thompson's was a useful number to have in your contacts list.

Steadman's artistic range is such that it would be unfair to describe him simply as an illustrator or cartoonist. He is, as his friend Bruce Robinson, director of Withnail and I and The Rum Diary told me, "A supremely talented artist. I feel it is a privilege to know him, because at his best he has the power of fucking Goya. I mean that. There is no one else in his league that I know of."

Steadman's own satirical targets have tended to be men abusing positions of power, and consequently very different people from the Charlie Hebdo assassins, who came from the class commonly described as the urban dispossessed, and who would undoubtedly have experience of scorn and racism.

"I am quite sure that people must have treated them like shit," Steadman says. "But I also think they were bullies, in not so different a way than certain politicians. Think of the mechanics of the killing. They call out the names, perhaps with those terrible pauses you get in reality shows. 'And the contestant leaving us today is . . .' I hope those deaths were quick, but in the minds of the killers it was probably the slower the better. I imagine they would have preferred to use a single shotgun, which required careful reloading each time, or a chainsaw. I think they were seeking to produce a very particular kind of shock."

In many ways, Steadman argues, "I think that terrorists and some political leaders share a similar mindset, in that

they consider themselves to be believers. They are devoted to a cause and they'll go to any lengths to uphold their chosen position. They are not completely stable, as the word is usually understood."

"So you can see a kind of similarity between terrorist operations and the rationale that led to the excursions to Vietnam or Afghanistan?"

"I can, and a big part of it is that sense of pride. Once they start the war, or the mission, they feel they can't stop. That would mean losing face. In the Rue Nicolas Appert they tried to give the whole thing a veneer of organisation by calling out the names, the death list, which must have been rehearsed. These are people who obviously have no sense of humour."

"It would be interesting to know what they would have laughed at."

"The helpless, the broken and the lame," Steadman replies. "Bullies. That is what they were."

"There's an odd confluence in all this: what these murderers represented was everything you have opposed all your life, and their victims were working, broadly speaking, in the same trade that you practice."

"And killers express their desires with blood. Very often my ink has the appearance of splattered blood. It's a recurrent theme; I don't know why."

Steadman's thoughts turn to the probable backlash against the wider Islamic community in France, once the prevailing spirit of national unity begins to dissolve, and the extreme right identifies the resulting tension as a commodity.

"Not that these two brothers were religious," Steadman says. "Who could argue that they were devout? My own view of all religion is that, if it brings people comfort, why deprive them of it? But I do think that, with certain people, belief can pervert morality."

"You were close to Kurt Vonnegut – didn't he once say that the only proof he required for the existence of God was music?"

"He also said that life is no way to treat an animal. And I think I know what Kurt Vonnegut would have said about all this, and not in an uncaring way: 'So it goes'. Meaning that, very sadly, these things happen. My father was in the first war and it was a hideous bloody affair. But of course those in that war, broadly speaking, never wanted to shoot. They were ordered. By some poncey bloody general, or Duke."

Would it be absurd to ask whether any good might come out of the events of 7 January?

"The only thing that you could possibly say that has not been entirely negative in this affair is that it hasn't half provoked a lot of discussion. Moral turpitude is high on the agenda. People are questioning their own stance on a whole range of things in a way that they might not have done previously."

"I didn't come here meaning to quote my own work," I tell Steadman, "but there is a psychopathic character in one of my books who is described as dangerous 'because he believed that the pen was mightier than the sword, but didn't always have a pen to hand'. People all over the world, on the streets and on social media, are finding all kinds of visual ways to rework that old proverb. These shootings could place cartoonists at the heart of contemporary conflict rather in the way that poetry became the most important form of artistic expression in the First World War."

"Or in the Spanish Civil War. I think that's very possible. It's also possible that, in some people's minds, becoming a cartoonist might seem like a heroic thing to do. Either heroic or suicidal."

"You'll know that Peter Cook once joked about the way that all of those satirical night clubs in 1930s Berlin 'did so

much to prevent the rise of Adolf Hitler'. Can all of these new cartoons have any effect?"

"I think – I know – that satire does frighten fascists. Fascists don't like satire. They don't like it at all. And they especially don't enjoy visual satire. Because of its unique power to communicate. As Wittgenstein [Ludwig] asserted, the only thing of value is the thing you cannot say. Sometimes you can't communicate the idea or the emotion, but a drawing can. You draw something, and people say: 'Oh, I see what you're getting at now'." And that thought, Steadman says, "brings us back to what happened in that room at Charlie Hebdo. Some things," he adds, "there are no words for".



SS Mirza/AFP/Getty

IS PAKISTAN COURTING TROUBLE IN ITS BATTLE WITH TERRORISM?

AFTER THE PESHAWAR SCHOOL MASSACRE, THE ARMY IS GRANTED ITS WISH TO TAKE OVER TERRORISM TRIALS.

For years, Sohail Zafar Chattha, a seasoned Pakistani police officer, has endured the frustration of watching notorious militants walk out of court free. Cases collapsed when witnesses inexplicably withdrew their statements. Arresting officers had a habit of turning up dead. Judges

seemed reluctant to convict. Now he dares hope that the hit men, bomb makers and cash handlers who form Pakistan's extremist hard core will soon feel the full force of the law.

"I'm very optimistic," Chattha told Newsweek from Rahim Yar Khan, a district in Punjab province, where he has seen a steady increase in sectarian violence. "My gut feeling is that a real war against terror has just begun."

Chattha's confidence stems from a vote by Pakistan's parliament to amend the constitution to allow the army to set up military courts to try suspected terrorists. Rather than rely on the civilian judiciary, whose members are often cowed by militant groups using Mafia-style intimidation tactics, the army will create tribunals overseen by uniformed judges in the comparative security of military bases. Proceedings will be swift, penalties severe.

While Pakistan's political class has broadly supported the measures, the prospect has alarmed human rights campaigners, who recall gross miscarriages of justice at similar courts in the past and fear the move marks a retrograde step in the struggle to establish an enduring democracy after decades of military rule. "We have handed so-called terrorists to an institution which doesn't believe in justice," said Asma Jahangir, a leading human rights lawyer. "We have no sympathy with terrorism, but we think that justice is the antidote, not revenge."

The tribunals would have been unthinkable up until a month ago in Pakistan, where the 18-month-old government of Prime Minister Nawaz Sharif has been intent on asserting the primacy of civilian authorities over the military. Sharif, who was overthrown in a coup in 1999 and spent years in exile, needs no lessons on the dangers posed by power-hungry generals.

But Pakistan changed on December 16, when gunmen dispatched by the Pakistani Taliban, or Tehreek-e-Taliban Pakistan, one of the country's main militant factions, stormed the Army Public School in a supposedly secure

military zone in Peshawar. At least 148 people were killed, including 134 students, many gunned down as they cowered under their desks. In a country drearily accustomed to witnessing the defenseless fall victim to atrocity, the massacre pierced the national conscience as never before.

Pakistan's response to militancy has long been hobbled by an ambiguous attitude from security forces, which have a history of covertly sponsoring certain jihadi groups as deniable foreign policy tools in Afghanistan and Kashmir. As Pakistan united in grief, authorities sought to project a new decisiveness. "We announce that there will be no differentiation between 'good' and 'bad' Taliban," said Sharif, in a rare public acknowledgement of Pakistan's murky record on state sponsorship of extremist proxies. The government hastily lifted a moratorium on executions of convicted militants and started to hang them in pairs or small groups. The army, increasingly frustrated at the glacial proceedings and dismal conviction rates for terrorism trials in civilian courts, was granted its wish to start its own prosecutions. "It wasn't possible before. Too ugly, too difficult," wrote Cyril Almeida, a columnist for the Pakistani English-language newspaper Dawn. "Then Peshawar happened."

The school massacre and its aftermath have renewed long-standing questions in Pakistan, illuminating both its struggle to contain the growth of militancy and its equally fraught quest to forge a sense of nationhood. Both these battles have been waged across an increasingly confused array of religious, ethnic and political dividing lines of late, with alliances in constant flux. The controversy over the tribunals puts the dilemmas in sharper focus.

While more than two-thirds of members of the National Assembly voted in favor, the move polarized opinion in Pakistan's political class, many of whom were wary of voluntarily ceding power to the military. Senator Raza Rabbani of the Pakistan People's Party (PPP), which

handed power to Sharif's coalition in the last elections, wept as he followed the leadership's direction to support the amendment during the January 6 vote, saying he had never felt more ashamed. In a reflection of the divisions, Bilawal Bhutto Zardari, the youthful PPP co-chairman and son of assassinated prime minister Benazir Bhutto, tweeted that the parliament had cut off its nose to spite its face.

The nervousness among some politicians is partly a reflection of the fragility of Pakistan's democracy. Elections in 2013 marked the country's first transition between elected governments, but months of paralyzing protests led by cricket-star-turned-politician Imran Khan, whose party abstained from the vote on the courts, have underscored how fluid the political situation remains. The government has sought to allay fears that the tribunals are subverting democratic norms by limiting their duration to two years, but many suspect they will morph into a permanent fixture.

Fears over a creeping expansion of military influence are even more acute in the frontier lands with Afghanistan, the focus of repeated army campaigns against the Pakistani Taliban. The latest offensive began in June, when the army launched operation Zarb-e-Azb in North Waziristan, a saw-toothed haven for Pakistani and foreign jihadis along the border with Afghanistan. The Pakistani Taliban said it had hit the school in Peshawar in retaliation for civilian casualties caused by army operations.

The showdown with militants has left the ethnic Pashtun population trapped between the brutal rule of totalitarian extremists and the trials of living under what many of them perceive as an army of occupation. The latest offensive has forced at least half a million people to flee their homes, and memories are raw of the roundup of large numbers of Pashtun civilians in a big army operation in the Swat Valley in 2009. "The army is already arbitrarily arresting people and labeling them as 'Taliban facilitators' when they

have no choice to cooperate because the Taliban practically forms the state in their home areas," said a researcher with extensive contacts among Pashtun communities in the borderlands, which are largely closed to journalists. "Now they will have a free hand without any sort of accountability."

The government has insisted that the courts will adhere to due process, but the army's record gives reason for pause. The military faced acute embarrassment before the last elections when then-chief justice Iftikhar Chaudhry held a series of hearings over allegations of disappearances and extrajudicial killings by intelligence agencies. The abuses are particularly egregious in the southwest province of Balochistan, where the bullet-riddled bodies of hundreds of people suspected of links to separatist guerrillas have been found.

The army has denied wrongdoing in Baluchistan and elsewhere—but the well-documented reports have done little to inspire confidence. Neither has the government's insistence that the new military courts will only be used to hear clear-cut cases of terrorism, which seems to imply a suspect will have been effectively convicted even before reaching the dock. "It has really reversed the principle of being innocent until proven guilty," said Zohra Yusuf, chair of the Human Rights Commission of Pakistan. "The military becomes jury and judge."

Beyond ill-at-ease progressives and concerned citizens on the frontier, the prospect of military courts has stirred opposition from a less obvious corner: conservative religious political parties, which have traditionally been broadly aligned with the security establishment. Several fear wording in the amendment explicitly authorizing the courts to try cases of sectarian or religiously motivated terrorism may foreshadow moves to start hauling away students and clerics from madrassas preaching the same Deobandi sect of Islam followed by most Pakistani militants.

Jamiat Ulema-e-Islam-Fazl, a leading religious party and a partner in Sharif's ruling coalition, abstained from the vote. The party says it wants the remit of the courts to be widened to allow the army to prosecute members of secular armed groups, such as regional separatists or political parties indulging in gangland-style tit-for-tat killings in Karachi.

Whether Pakistan really has reached a turning point will depend on the scope of the military's crackdown. Anxious to prove they are serious, Pakistani officials told Reuters they had decided to formally outlaw the Haqqani network, an Afghan militant faction seen as the exemplar of the Pakistan army's fondness for "good" Taliban assets. The report followed this month's visit to Islamabad by U.S. Secretary of State John Kerry and it is uncertain whether such a ban would have more than symbolic value in the Haqqani enclaves in North Waziristan.

The power of the militants may be starkest in their mini-emirates on the Afghan frontier, but their corrosive influence has spread to the flatlands bordering India and down to the Arabian Sea coast, infecting the heart of major cities and sowing bigotry in once tolerant rural backwaters.

While the extremist groups are united in their hatred of other religious minorities and liberal politicians, they each occupy different places on a spectrum of relationships with the security forces—ranging from open war to peaceful co-existence. For example, Hafiz Saeed, a founder of Lashkar-e-Taiba, which is blamed for the 2008 attacks on Mumbai, India, operates freely across Pakistan, despite the U.S. having offered a $10 million bounty for his arrest. Unless the security establishment cures itself of its partial blindness toward the growing influence of some of its former proxies, the whole country's response is liable to remain ambivalent and confused.

It would be unrealistic to expect the military to attempt to simultaneously dismantle all facets of Pakistan's hydra-headed militant infrastructure. But what happens next may

yield clues as to whether the horror at the Army Public School has provoked a lasting change of heart among the generals.



Peter Oumanski

TWO NUMBERS: THE ITALIAN JOB? NO LONGER

THE CHANGING FACE OF THE VATICAN'S COLLEGE OF CARDINALS.

When Pope Francis announced a new batch of cardinals this month, he struck a balance between the church's historic, Italian roots, and its future, which most likely lies in Latin America, Africa and Asia. To wit, Francis picked four Italians and twice that number from the developing world.

For most of its existence, the Roman Catholic Church has been a majority-Italian institution. Pope Leo XIII, the first pope of the 20th century, was born with a mouthful of a name, Gioacchino Vincenzo Raffaele Luigi. His successor, Pius X, was born Giuseppe Melchiorre Sarto; his successor, Benedict XV, was Giacomo Paolo Giovanni Battista della Chiesa. And so on and so on, until the College of Cardinals, the body charged with electing new popes, in 1978 chose a Pole, Karol Józef Wojty#a, who became John Paul II. He was the first non-Italian to hold the office since the 16th century—Pope Adrian V, a Dutchman.

The fact that the college has traditionally picked Italians to fill the Vatican's top slot is no surprise. For most of its history, the college has been filled with Giuseppes and Giacomos, not Josephs, Jacobs or Juans. But that is changing. After nearly two-and-a-half millennia of Italian control, the college has been slipping out of Italian hands, a reflection of the church itself.

At the culmination of Pope Pius XI's papacy in 1939, 57 percent of the college's electors—members younger than 80 who can vote in papal conclaves—were Italian. Most of the Curia, or papal court, was also Italian. Pius XII (1939-1958) brought that number down to 33 percent. John XXIII (1958-1963) raised it slightly, to 35 percent. Paul VI (1963-1978) lowered it again, to 24 percent. John Paul II (1978-2005) slashed it dramatically to 17 percent. Benedict XVI, the current pope's predecessor, brought it back up to around a quarter. After Pope Francis's latest picks are made official in February, the College of Cardinals will be 20.8 percent Italian.

Pope Francis seems eager for the church hierarchy to reflect the changing demographics of its members. According to the Pew Research Center, in 1910 65 percent of the world's Catholics called Europe home. In 2010, that number was 24 percent. In 1910, Italy was home to the second largest number of Catholics in the world, 12.1

percent of all Catholics, behind France. A century later, only 4.6 percent of the world's Catholics live in Italy, and Italy is only the fifth largest Catholic country, behind Brazil, Mexico, the Philippines, and the United States. This means that the College of Cardinals is still disproportionately Italian.

Among the new cardinals chosen by Francis are Orani João Tempesta of Brazil, which is home to more Catholics than any other country, Mario Aurelio Poli of Francis's native Argentina, Jean-Pierre Kutwa of Ivory Coast, Chibly Langlois of Haiti, and Orlando Beltran Quevedo of the Philippines. Also chosen was Philippe Nakellentuba Ouédraogo of Burkina Faso; sub-Saharan Africa saw its Catholic population explode from 1 percent of the world population in 1910 to 21 percent in 2010.



Kevin Kane/AP

A MANHATTAN MADE-FOR-TV MURDER

A WALL STREET PATRICIDE HAS MANHATTAN HIGH SOCIETY GOSSIPING ABOUT WHAT WENT WRONG.

As Wall Street investor Thomas Gilbert Sr. stood under the giant elm trees shading Princeton University's stately Nassau Hall on a sunny June Commencement Day in 2009, he saw a gleaming future for his son, Thomas Jr. "He's going to run a hedge fund!" the senior Gilbert, also a Princeton alumnus, declared with pride when asked what

the handsome, 6-foot-3, blond-haired Tommy planned to do with his economics degree.

Things turned out very differently for both Tommy and his father.

Tommy, now 30, never held down a job after graduating and lived off his parents' handouts. And on January 4 he was arrested on suspicion of shooting his 70-year-old father in the head inside his parents' eighth-floor Manhattan apartment.

Tabloids and TV news were riveted by the drama of the wealthy scion who, according to an indictment, killed his father on a Sunday afternoon with a .40-caliber Glock pistol after asking his mother, Shelley, to run out and fetch him a sandwich. When she returned to her tony Beekman Place apartment shortly after 3:15 p.m., Tommy was gone and her husband was dead in the bedroom, the Glock not so artfully placed on his chest, as if to suggest this was a suicide. She called 911 and reported that she thought Tommy had murdered his father, court papers show.

When cops descended on Tommy's shabby, one-bedroom apartment in New York City's Chelsea neighborhood around 11 o'clock that night, after tracking him down by pinging his iPhone and ordering him to return to his apartment, they found ammunition for a .40 Glock, a Glock manual and carrying case, a speedloader, a red dot site for a handgun, 21 blank credit cards and a "skimmer" device used to steal credit card numbers. Arrested on the spot, Tommy was indicted by the Manhattan district attorney's office a few days later.

The details of the Tommy Gilbert case have captured the imagination of a certain portion of society in Manhattan and the Hamptons. After all, if money, good looks, an Ivy League education and an entrée to Wall Street aren't sufficient ingredients for happiness and success, what is?

"People are calling him a monster, but the person I knew wasn't a monster," a former Princeton classmate tells Newsweek. "He was a human and a likable one."

Marc Agnifilo, a lawyer for Tommy, declined to comment.

With his J. Crew looks (and a closet full of J. Crew clothes, according to a former girlfriend, Anna Rothschild), Tommy seemed like a classic New York WASP. He enjoyed the best education, starting with Manhattan's elite Buckley School and the Deerfield Academy boarding school in Massachusetts. The family belonged to the obsessively exclusive Maidstone Club in fashionable East Hampton, New York, close to where his father and mother own a house worth more than $10 million in the elite Georgica Association enclave. Nearly every weekend, even in winter, Tommy surfed the notoriously rough waves off Montauk, and he went to NASA space camp as a child, a former Princeton classmate said. "I remember him saying once after graduation, 'I always wanted to work there,'" the classmate said.

Shelley, a former debutante and the daughter of an AT&T executive, attended the all-female Ethel Walker boarding school, in Simsbury, Connecticut, and the all-female Hollins College in Virginia, two institutions known to draw proper, well-heeled young women. She worked briefly at a New York investment bank that later became known as Rothschild Inc. Shelley's society wedding in 1981 to Thomas Sr., at St. Bartholomew's church on Park Avenue, a Byzantine-Romanesque structure in which Vanderbilts worshipped, was followed three years later by Tommy's birth.

As blogs bristled with barbs about a "spoiled brat" and "trust-fund baby," NYPD Chief of Detectives Robert Boyce indicated at a press conference on January 5 that money was behind the ghastly crime. The

senior Gilbert had been paying the $2,400-a-month rent on Tommy's Chelsea apartment, and New York's tabloids reported that Tommy was not happy with his father's threat to cut his weekly allowance to $300 from $400—hardly a princely sum in Manhattan.

Tommy is "clearly a bright, troubled kid" who had a "difficult relationship with both parents," says a person close to him who spoke on condition of anonymity. "He needs serious psychiatric long-term treatment."

While no evidence has emerged of a diagnosed mental health problem, there were some disturbing signs. Last September 18, court records show, Tommy was charged by police in Southampton with violating a June 2014 protection order taken out by Peter Smith Jr., whose father rode the Hampton Jitney bus on weekends from Manhattan with Tommy's father. Only three days earlier, in nearby Sagaponack, the Smith home, a 17th century historic mansion, burned to the ground in circumstances that are unclear. Lisa Costa, a detective with the Southampton police who is investigating the fire, says Gilbert is a "person of interest" in the blaze.

Tommy spent the five years since he left Princeton doing not much more than surfing, practicing Bikram yoga, working out, eating sushi and watching Netflix, according to Rothschild, who dated him in early 2014. Rothschild, a 49-year-old Manhattan socialite who runs a public-relations firm and is 19 years older than Tommy, encouraged him to attend black-tie gala events, where he would sip one glass of wine at most. Until he moved into the Chelsea apartment in May 2014, he lived in a dark, cramped basement studio apartment, also paid for by his father, near 86th Street and Lexington Avenue, where the Upper East Side starts to turn from pricey to gritty. "Tommy was quite well dressed and very clean, but that studio," with ragged furniture and a television with no cable service, "was appalling," says a person who saw it.

His signature trait, friends and former classmates told Newsweek, was his quietness. “Basically, he has no friends, his phone didn’t ring and nobody texted him,” says Rothschild. When Tommy told her he was interested in acting, she said she told him, “I don’t think that’s the best option for you, because you don’t talk a lot.” But last April she encouraged him to set up a session with a photographer to get professional modeling pictures.

Tommy apparently never talked, even to his former Princeton classmate, about why he had graduated two years later than expected, though court papers show he was busted for drugs on the eve of his original graduation date, in 2007. “He seemed kind of gentle but insecure,” that former classmate says. “He always seemed ambivalent. He was sweet, but he seemed abnormally calm. He wasn’t even anxious about his thesis.” The 64-page thesis, titled “The Word Effect: Effects of the Word Content in the Financial Times on Firms’ Earnings in the U.K.,” is lightweight by Princeton standards. Wei Xiong, the economics professor who was Tommy’s thesis adviser, says, “I honestly don’t remember this student.”

Despite his father’s bold prediction at that commencement, Tommy was skeptical of Wall Street. He saw it as “having way too much power and control,” the former classmate says. Others say that was a reflection of his attitude to his father, who was also a Harvard Business School graduate. “He would talk about how anything he attempted to do, it wasn’t good enough” for his father, Rothschild says. “He probably figured, What’s the point of having a job?”

Last May, Tommy did register a hedge fund, though it never raised any money, securities filings show. In an industry where fund names typically convey meaning, he called his the Mameluke Capital Fund. The Mamelukes were medieval slaves who rose up against their Egyptian rulers in 1250 and held on to power for nearly three centuries.

While wealthy in absolute terms, the Gilbert family was not superrich by New York standards. A will filed in Manhattan Surrogate Court shows Gilbert Sr.'s estate worth $1.627 million. Slayer laws would prevent Tommy from inheriting his one-third share if convicted. In a possible sign of a cash crunch, according to a former colleague of the father, the Gilberts listed their East Hampton home for sale last month for $11.5 million. (The listing was canceled after the murder.)

Thomas Gilbert Sr. "was driven by power, money and success," the former colleague tells Newsweek—particularly in recent years, as he struggled to grow a small hedge fund, Wainscott Capital Management, that he started in 2011 after four decades in private equity. The older Gilbert would typically sleep only four to five hours a night and fire off emails at 4 a.m. that were "frenetic," this person says.

Frenetic was the last word people would use to describe Tommy.

At the Main Beach Surf Shop in East Hampton, George "McSurfer" McKee remembers Tommy as someone who always took the path of least resistance, who was "a little below-average in turning and catching waves. He was kind of fooling around." While he always had plenty of surfboards, he tended to avoid the tough-to-control short boards, preferring a longer, wider "fishtail" board. "He would always," McKee says, "ride the easiest one to ride."



Adriás Bago/Pennsylvania State University

PLASTIC, INSPIRED BY SQUID PROTEIN

RESEARCHERS HAVE USED SQUID PROTEIN TO HELP CREATE A THERMOPLASTIC AS STRONG AS KEVLAR THAT CAN BE 3D PRINTED, WORN, AND USED IN MEDICAL DEVICES.

Melik Demirel has long been interested in creating materials that mimic nature. With his colleagues, he's fabricated materials based on butterfly wings and gecco footpads. Most recently, the engineering science and mechanics professor and his team at Pennsylvania State University have produced a thermoplastic that replicates

squid ring teeth (SRT), a protein complex extracted from the squid tentacles' suction cups.

They've made "an eco-friendly material with remarkable mechanical properties," Demirel says, one that "provides unique opportunities for a range of applications including drug delivery, materials coatings, tissue engineering, and wet-adhesives." Their study was published as the cover of the December 17 issue of the Advanced Functional Materials journal.

The problem with previous materials he's studied in the past, Demirel says, is that they could not be engineered. In other words, they could not be easily reshaped or remolded into different forms, limiting their real-world applications. He turned to squid ring teeth, a structural protein (like hair or nails) similar to silk in its semi-crystalline structure, which could be shaped into any geometry using polymer processes that have been around for a century, as well as newer 3D printing methods.

The amount of SRT protein that can be extracted from squid is severely limited, "even if you caught all the squid" in the world, says Demirel, with a touch of hyperbole to drive home the point. "The natural abundance will be the limiting factor." To produce the material in larger quantities, Demirel and his fellow researchers used a common bacteria-based fermentation technique that originated during the 1980s biotech boom.

The researchers took genes from a squid and put it into E. coli bacteria. "You can insert genes into this organism and while it produces its own genes, [it] produces this extra protein," Demirel explains. He compares the process to making wine or beer, except that instead of the fermentation process producing alcohol, it produces more of the synthesized squid protein.

They began producing the material in a 1-liter tank, but by now have started using a 300-liter tank and can make 30-40 grams a day. In addition, they've made several

changes to make the production process cheaper, whittling the cost down from $50 per gram to $100 per kilogram. Demirel says they are looking at using algae instead of bacteria to cut down costs further.

The squid-inspired thermoplastic has several advantages over traditional plastics, Demirel says. It's lighter than carbon-based materials and its versatility allows it to be made into fibers and thin films. Because it's a protein, it's also biodegradable and tuneable. In other words, you can modify the properties of the gene at the start of the production process to adapt the material to different needs.

Finally, the production process requires less energy and is more environmentally friendly than that of traditional plastics. Unlike the "high temperature refinery processing of plastics," which are manufactured from fossil fuel sources like crude oil or from synthetic oils, the creation of the SRT thermoplastics can take place at room temperature

Demirel and his team are not alone in touting the potential of such proteins. In July, the American Chemical Society's journal ACS Nano published research on a few dozen proteins from a number of species of squid and one cuttlefish.

"We envision SRT-based materials as artificial ligaments, scaffolds to grow bone and as sustainable materials for packaging, substituting for today's products made with fossil fuels," Ali Miserez from Nanyang Technological University in Singapore told the ACS. "There is no shortage of ideas, though we are just beginning to work on these proteins."

Demirel and his team have already started working on a number of applications. They've received funding from the army to work on developing new textile materials for soldiers, and they are currently working on making backpacks. They've begun collaborating with colleagues in medicine as they think about using colloids—a kind of substance they've already succeeded in making from the

synthesized SRT protein—for drug delivery that targets certain cells, such as tumor tissue in cancer patients, as well as 3D printing devices like prosthetic arms.

The researchers are also looking toward the adhesive market. Since they're working with a protein-based material that evolved in a marine environment, it can resist water and stick to other surfaces even when wet, a huge advantage compared to other adhesives, Demirel says.

In the (far) future, Demirel can also see applications in space. He imagines, for example, using the material to produce equipment up on Mars—rather than lugging stuff along on a mission. "One of key advantages," he says, is that "you can take bacteria and grow it anywhere you like."

"It's completely futuristic, Demirel admits, but it seems he can't help but "start imagining what could be done."



Matt Sullivan/Reuters

TECH GIANTS HAVE A FEW NEW TRICKS FOR STOMPING STARTUPS

YES, STARTUPS ARE SEXY, BUT THE BIG TECH COMPANIES HAVE SOME ADVANTAGES.

Call this: Revenge of the Suits.

In technology circles, everybody knows startups are da bomb. They're the disruptors, the innovators, the stuff of investor fantasies. We thank heaven entrepreneurs bless us with their zeal and lead the world into the future.

And what about the large, established tech companies like General Electric, IBM or LG? They're often perceived like the parents in a Peanuts TV special, with nothing important to say: "Wa-wa wa-wa-wa wa." They move like Mick Jagger—in his 70s. They're basically piñatas for the startups to whack.

But in this hyperconnected age, big companies are gaining an interesting new advantage. They have two things startups increasingly hunger for: data and time.

The data virtue was on display at the 2015 Consumer Electronics Show (CES), which just drew 160,000 attendees to Las Vegas. All around the floor, giants such as LG, Samsung, Sharp and Sony set up booths the size of Downton Abbey to show off their curved 4K TVs and bendable phones. Common to almost all of these crowd-pleasing products are recent breakthroughs in the technology of glass—breakthroughs that came out of Corning, a corporate giant born in 1851.

At Corning's modest booth, tucked toward the back of the CES floor near an Indian food cart, Senior Vice President Jeffrey Evenson talked about the company's approach to research and development. Corning invented fiber optics and the Gorilla Glass that covers most of our smartphones, so it already has a great store of data about glass chemical properties and manufacturing processes. But now Corning can arm factories and labs with swarms of networked sensors that constantly generate data about glass-making—data never before captured.

That data is now Corning's competitive advantage, feeding powerful computers that can model new glass compositions and predict how they'll perform, so the lab can experiment rapidly. A decade ago, almost all of Corning's R&D was aimed at 10 or 15 years out. Now, if a customer articulates a problem—like needing radically thinner glass for a TV the thickness of a magazine or a phone that can fold like a wallet—the computer models help Corning respond

quickly. “That’s why you’re seeing such fast cycles in TVs,” Evenson said. “We’re doing fast R&D.” The data makes it possible.

That conversation reminded me of one I had months earlier with Michael Idelchik, GE’s vice president of advanced technology programs. GE builds jet engines for most of the airlines. These days, the engines are loaded with sensors that gather a terabyte of data on every flight. The data is getting so detailed, and the computer models of engines so good, GE can understand the different ways jets perform in cities that have different altitudes, pollutants, winds and so on.

The company then uses the computer models to constantly tweak engines and tune them based on the primary routes they fly. If a startup even dreamed of competing in jet engines, it would take decades to catch up to GE’s trove of data and match the sophistication GE can build into the technology.

This same kind of thing is happening throughout industry. In the emerging Internet of Everything, smart companies are turning activity in the physical world into data, and they are turning that data into models that let them understand more and react faster than competitors. The best data wins. And a big retailer, airline, food company or steelmaker has more ways to collect better data than any upstart.

And what about time? Every kind of company has less of a time window than it used to, but startups now have to run like the Road-Runner on meth. A recent research project (which I helped write) looked at one measure of the pace for startups—called Time to Market Cap—and found that the speed at which a startup needs to grow is three times faster than it was just a dozen years ago. Startups have no time to develop deep, complex technology.

Yet society badly needs deep, complex technology. On January 14, IBM unveiled its latest System z mainframe

computer, a monster of new technology that took five years to develop. Mainframes might seem dull as wire hangers compared with new stuff like Uber or Slack, but every major bank in the world relies on IBM mainframes, as do thousands of companies from Priceline to Kenya Power.

When competing with young companies, time is on IBM's side. Established companies "often have essential and very valuable assets such as expertise, intellectual property, supply chain relationships and strong customer loyalty," says Larry Downes, co-author of Big Bang Disruption. These things, together, buy time. At startups, such assets are rare. Yet because no balance sheet includes a column for time. "It's very hard in [big] public companies for managers to recognize that's where the value is," Downes adds.

In fact, a lot of corporate executives try to make their companies operate more like startups. But it's usually not a good idea to try to be something you're not. Corporations can't compete head-on against the agility and fervor of a small band of believers. They should, instead, embrace their unique advantage.

Nobody is suggesting that big players are going to suddenly steal the show from startups. But over the past 20 or 30 years, the big players have often been on the run, staring down "disruption" from freewheeling small companies. What's new is that big companies can deploy data and time to make themselves important and relevant in technology. After all these years of hoodies and Birkenstocks, suits are coming back in style.



Justin Sullivan/Getty

THE OYSTER SHELL GAME

THE FEDERAL GOVERNMENT IS SPINNING SCIENCE TO JUSTIFY ENVIRONMENTAL POLICY.

Two weeks before Christmas, in a serene Pacific inlet north of San Francisco, a small mountain of fresh oysters sat rotting in the rain. Kevin Lunny, the owner of the Drakes Bay Oyster Company, watched a yellow mini-dozer chug back from the waterfront, tip its shovel and, in a great clattering of shells, dump hundreds more onto the heap.

After seven years of political and legal battles that have grown into one of the ugliest environmental fights in the country, this was the end of the line for Lunny's oyster farm. "It's been a terrible time," said Lunny, who still lives on the nearby cattle ranch where he grew up and where his grandfather started a dairy farm in 1947. The forced closure of the oyster company marks the end, after almost 80 years, of modern shellfish farming in Drakes Estero, the tidal estuary that lies at the center of the dispute.

In 1935, an oyster farm was established in the estuary's innermost harbor, run for a few decades by a rotating crop of shellfish farmers, and from 1961 on it was called the Johnson Oyster Company. The estero was a generous sea garden, eventually becoming a source of about 500,000 pounds of oyster meat a year, all grown with nothing more than seawater and sunshine. "It was a resource for a lot of people," Lunny said.

But Drakes Estero is also an environmental sanctuary. It's home to one of the state's largest harbor seal colonies and significant numbers of shorebirds, and is prized by naturalists as the ecological heart of the Point Reyes National Seashore, public land managed by the National Park Service. In November 1972, the Johnson family sold their five acres of shoreline to the federal government for $79,200 and signed a 40-year lease that permitted a narrow range of business options, such as "the interpretation of oyster cultivation to the visiting public," and was renewable as long as any future permit was "in accordance with National Park Service Regulations in effect at the time the reservation expires." In 2005, Johnson sold that permit to Lunny, who cleaned up and rebranded the old farm and dubbed it the Drakes Bay Oyster Company.

Shutting down the farm this winter was a harsh blow for Lunny and his employees, some of whom worked here for over 25 years, but a critical victory for environmental lobbying groups. For the past few years,

advocacy organizations coordinated by two leads, the local Environmental Action Committee of West Marin (EAC) and the National Parks Conservation Association, fought to have the estuary converted to “full wilderness,” a sacrosanct designation that prohibits oystering, along with any other mechanized or motorized interference with the subtler designs of nature.

"At last, we get to restore Drakes Estero to its native splendor," wrote Amy Trainer, executive director of the EAC, in a late-December column. "The harbor seals that come to Drakes Estero to give birth and raise their young will finally be free from disturbance."

The idea that Lunny's farm was a heavy industry that imperiled the park's wildlife was, for a while at least, the core reason for evicting him. But for the U.S. Department of the Interior (DOI), the only agency with the power to enforce full wilderness protection, there was one problem with this argument: proving it.

To the bewilderment and eventual outrage of Lunny's advocates in California and Washington, D.C.—U.S. Senator Dianne Feinstein chief among them—the DOI and its National Park Service spent much of the past decade using scientifically unsound, and at times bizarre, tactics to prove the oyster farm had to go. "The Park Service has falsified and misrepresented data, hidden science and even promoted employees who knew about the falsehoods, all in an effort to advance a predetermined outcome against the oyster farm," Feinstein wrote to then-secretary of the interior Ken Salazar in March 2012. "It is my belief that the case against Drakes Bay Oyster Company is deceptive and potentially fraudulent.”

After Lunny accepted some legal aid from a libertarian group in Washington, D.C., the rhetoric from environmentalists turned apocalyptic. Amid howls of Koch brothers lurking and baby seals dying, the oyster farm’s request for a 10-year lease extension was described as

"a precedent-setting land-grab effort" and a step toward privatizing the entire National Park System. In the face of this escalation, Feinstein's coalition drew in Republican congressmen, former California lawmakers and dissenting Bay Area progressives, including the chef Alice Waters and the writer Michael Pollan.

"I firmly believe that renewal of the permit is the only way for the Park Service to send an unmistakable signal that the [Obama] administration's commitment to scientific integrity is real," Feinstein told Salazar.

In November 2012, Salazar ruled against the farm, citing simple reasons: The lease was up; he had no obligation to renew it; and, he argued, the farm violated park policies for commercial activities within the National Park System.

Findings Altered

"I'm not interested in being a whistle-blower," Brent Stewart said. But documents he recently shared with Newsweek reveal how a federal science agency ignored norms of academic research in an apparent effort to justify policy and shut down a private business.

Stewart is a marine biologist and seal behavior expert with the Hubbs-SeaWorld Research Institute in San Diego. In May 2012, the U.S. Geological Survey (USGS) recruited him to evaluate photos taken by "remotely operated wildlife monitoring cameras" that a Park Service scientist had secretly installed around the estero in May 2007, and that over the years became the focal point of the controversy.

When the conflict between the Park Service and the Lunny family first erupted in 2007, the Marin County Board of Supervisors reached out to two people: Feinstein and Corey Goodman, a National Academy of Sciences (NAS) member and a former University of California, Berkeley, and Stanford biology professor who lives near Point Reyes. They discovered a Park Service outpost whose scientists had

published dubious environmental reports that, for example, erroneously attributed one seal colony's 80 percent decline to the oyster farm. The disappearing seals, Goodman later learned, had merely relocated closer to the farm.

Feinstein called on the NAS to conduct an external review of the Park Service's environmental studies. The resulting report concluded that Park Service scientists, in setting out to prove the farm was causing environmental harm, had "selectively presented, over-interpreted, or misrepresented the available scientific information" and "exaggerated the negative and overlooked potentially beneficial effects of the oyster culture operation."

For example, when they saw seal numbers dropping, scientists made targeted assumptions about the oyster farm that ignored critical variables, such as nosy kayakers and shifting sandbars. Such limited data, the NAS said, "cannot be used to infer cause and effect." Ultimately, the NAS "conclude[d] that there is a lack of strong scientific evidence that shellfish farming has major adverse ecological effects on Drakes Estero."

Throughout the battle, environmental groups had labeled the farm, as one brochure put it, "an ecological disaster." But after the NAS report diffused the urgency over issues like eelgrass (coverage had actually doubled from 1991 to 2007), fish (healthy) and invasive tunicates (problematic, but also epidemic worldwide), attention once again turned to the estero's marquee wildlife: those seals.

Harbor seals are prevalent along the California coast, and according to the National Oceanic and Atmospheric Administration, populations are stabilizing. But with the seals a protected species under the 1972 Marine Mammal Protection Act, the NAS called for more and better research on them in Drakes Estero and specifically suggested "a data collection system that could be independently verified, such as time- and date-stamped photographs." What the NAS did not know, because Park Service scientists had not

told it, was that such a trove of evidence already existed —roughly 250,000 archived photographs, snapped once a minute by an automatic Reconyx Silent Image game camera, every day from sunup to sundown during the seals' spring pupping season, for more than three years. The photos documented oyster boats passing the seals at a distance of about 700 yards, or a little under a half-mile, with a large noise-buffering sandbar between them and no clear evidence that either man or beast had ever noticed the other.

When Feinstein learned that the Park Service had concealed these photos, she went into full boil. Park Service scientists, she said, "acted as if they were advocates with no responsibility to fairly evaluate the scientific data." She told Salazar the integrity of his agency was on the line. "Whether it was intentional or because of personal bias, these practices must not be tolerated nor allowed to continue," the senator said.

Goodman filed a formal scientific-misconduct complaint, which in turn triggered an internal investigation by a DOI field solicitor named Gavin Frost, who was no more charitable in his assessment. Park Service scientists, Frost wrote, had "intentionally omitted the photographic research, in an effort to manipulate the outcome of [the NAS] report," and were "blurring the line between exploration and advocacy." Frost's report ultimately charged Park Service employees with the lesser crimes of "scholarly" and "administrative" misconduct and let them carry on with their seal studies undeterred.

In 2012, with the end of the farm's lease approaching, the DOI ordered the USGS to complete a definitive study of the seal photographs. Stewart, a respected 37-year veteran in the field, was called in as an independent authority to determine whether the photos were sufficient for scientific research and whether, after years of internal recrimination at DOI and the Park Service over the issue, Lunny's boats had disturbed the creatures.

On May 3, 2012, Stewart filed his reports, determining there were no disturbances attributable to the oyster farm's boats. (There was one case, however, where a curious kayaker caused several seals to flush into the water.) But when the USGS published its final report that November, Stewart discovered that his findings had been altered and that the study reached conclusions his research directly contradicted. "It's clear that what I provided to them and what they produced were different conclusions and different values," says Stewart. "In science, you shouldn't do that."

For example, the USGS had deleted his words "no evidence of disturbance" for one date, and in its analysis stated that two disturbances "were associated with boat activity"—despite Stewart's study that showed otherwise. Strangely, USGS went back to Stewart months later and asked him to double-check his work on two dates in particular. He did as requested and reiterated his findings, but even this did not alter the final report's inaccuracies. In its Final Environmental Impact Statement, the Park Service took this alteration one step further by implying causation between the boats and the seals, something Stewart had explicitly ruled out. Eventually, this Impact Statement would be used by Department of Justice lawyers in their arguments against Lunny before the 9th U.S. Circuit Court of Appeals.

Stewart told his contacts at the USGS that their report had errors and asked if he could correct them. "The response I got was, 'No, it's done. It can't be changed.' That was a bit shocking."

This wasn't the first time a DOI agency was caught making fraudulent claims. Two years ago, Feinstein and Goodman uncovered an attempt to by the Park Service to use sound measurements from a 1995 study on New Jersey jet skis in order to show that Lunny's boats were distressing the seals. "I am frankly stunned," by the patterns of abuse, Feinstein wrote in her final letter on the matter to Salazar.

Goodman, a professor who peppers his conversations with sayings like “facts are our friends,” emerged as a fierce advocate for the farm and against what he sees as the misuse of science. In May 2013, he filed another scientific misconduct complaint against the USGS where he reiterated how the agency had twisted Stewart’s facts. “[It] is so absurd,” he told Newsweek, "you could show it to grammar school students and they would immediately understand it was ridiculous.”

This past November, the USGS dismissed Goodman's 160-page complaint with a one-page letter. The agency's Scientific Integrity Office did not address the specifics of Goodman’s report in either their letter or in a brief overview published on the DOI website. In the latter, the USGS stated that “no evidence was provided by the complainant, nor found during the inquiry of any significant departure from accepted practices...nor was there any evidence of intent to deceive or misrepresent work.” When pressed for explanation of their decision, the USGS did not respond.

Since 2007, three Park Service employees that Frost charged with scholarly or administrative misconduct have been promoted within the agency. The USGS and DOI declined to comment on this story. U.S. Representative Jared Huffman, whose 2nd congressional district includes Point Reyes (and whose office has had copies of Stewart’s reports since May 2013), also declined comment on this story, as did Marcia McNutt, who served as USGS director from 2009 to 2013 and is now editor-in-chief of the journal Science. None of Stewart’s co-authors on the 2012 USGS report responded to requests for comment.

An ‘All or Nothing’ Ethic

Since it was designated as a national seashore by President John F. Kennedy in 1962, Point Reyes has been an ambitious social and environmental experiment. Historic working farms coexist with the park's protected

elk, egrets and elephant seals, and Western ranchers live in close and peaceful proximity to environmentalists. The two communities united in their shared wariness of development and suburbanization, and they collaborated on visionary legislative compromises that made Point Reyes an exceptional preserve close to a major metropolis. But the honeymoon was short-lived.

"There are deep roots to the hostility of environmentalism toward agriculture," Michael Pollan wrote to Feinstein in 2012. "An 'all or nothing' ethic that pits man against nature, wilderness against agriculture, may be useful in some places, under some circumstances, but surely not in this place at this time." Lunny's oyster farm, he wrote, "stands as a model for how we might heal these divisions."

In Northern California, where local food borders on an obsession for many, the agricultural community supported the farm, in both spirit and in court. Alice Waters filed a joint brief in the farm's defense with the 9th U.S. Circuit Court of Appeals, joining the California Farm Bureau, Food Democracy Now and several restaurateurs and retailers. Along the winding roads that carry weekenders north from the city to graze on grass-fed burgers and aged goat gouda, dozens of hand-painted signs went up on barns, gas stations and storefront windows, pleading, "Save Our Drakes Bay Oysters."

But to wilderness advocates, the state's only oyster cannery, with its salt-crusted boats and front-end loaders and plastic oyster bags, was a dirty business in a sacred place. Jerry Meral, a respected conservationist who served as deputy secretary of California's Natural Resources Agency from 2011 to 2013 and sits on the board of the EAC, which led the fight against the farm, isn't persuaded by the sustainable seafood argument. "It's not the only oyster farm," he told Newsweek. "If there's a big demand for oysters, it will probably be filled, even if we have to bring them in

from China…. I'm not sure you make a decision on the use of a national park on that kind of basis."

You've Been Shucked

The Park Service and wilderness advocates now say that the issue in Drakes Estero was environmental policy, not environmental science. "Science will always be debated, like climate change," said Melanie Gunn, outreach coordinator for Point Reyes National Seashore. "But the law and policy of the Wilderness Act is very clear," she said in defense of Salazar's decision to shut down the farm.

Lunny lost in his circuit court appeal, and this past June, when the Supreme Court declined to hear the case, he ran out of legal options.

To Meral and his EAC, the controversy over bad science is overblown. "I think [Lunny] was treated fairly," he says. The Park Service, he said, "intended to close him down, they did everything they could to close him down, and eventually they did close him down." Trainer, who heads the West Marin EAC, wrote that "good government prevailed."

Goodman hasn't given up the fight for good science, but he is discouraged by the politics. "The environmental movement has lost its way," he said. "And I say that as an environmentalist and a lifelong Democrat." After seven years, Lunny is no longer surprised. The changes to Stewart's science "is not the first fraud," he said.

Before Christmas at Drakes Estero, as gulls stalked the perimeter of the rising oyster pile and the farm's workers hauled out about $2.5 million in unsold oysters, Lunny reached into an exposed dirt hillside about 100 feet from the water and pulled out a small, white shell. "This is a confirmed Oly," he said, using the nickname for the native Olympia oysters that once filled every bay and estuary on the Pacific Coast. The hillside was part of a midden, an ancient shell pile left behind by earlier seafood-eating peoples, in this case California's indigenous coastal Miwok

tribe, and carbon-dated to over 1,000 years old. Behind Lunny, the yellow mini-dozer coughed black smoke into the air, lifted its shovel and dumped more fresh oysters onto the rotting heap.

“This thing,” Lunny said without turning to look, “could drive me crazy if I let it.”



Maggie Lidz and Gogo Lidz for Newsweek

A RESTAURANT WITH A WAITING LIST OF 60,000

NOMA, THE COPENHAGEN RESTAURANT NAMED THE BEST IN THE WORLD, OPENS A POP-UP RESTAURANT IN TOKYO...AND YOU'RE PROBABLY NOT GETTING A TABLE.

Imagine a pop-up restaurant that holds 56 people, has two daily seatings and a reservation waiting list of 60,000. Now imagine being the last person on that list. That may be the very definition of optimism.

Noma, the Copenhagen eatery that industry magazine Restaurant named Best in the World four of the past five years, assembled such a list for its five-week pop-up in Tokyo. I wasn't one of the 60,000. I was one of the lucky few who nailed a reservation.

Which is how, on January 9, I got to be the very first customer seated for the very first meal on the very first day.

So kick me.

Noma's 37-year-old chef and founder, René Redzepi, is the high wizard of "New Nordic" cuisine. Using traditional Scandinavian techniques like smoking, pickling, curing and fermenting, he and his small, dedicated team transform native ingredients into something entirely new and, more important, delicious. "The idea is to force creativity by setting limitations," Redzepi says.

This is edible theater: The plating is scenery, and the menu forms a sometimes whimsical narrative. What he describes as "snacks"—deep-fried reindeer moss, fermented grasshoppers, roasted lettuce juice—has been so groundbreaking and inspirational that the inevitable backlash has begun. This month Redzepi's "Great Scandinavian Craze" topped New York magazine's Trends We're Tired Of list. ("I'm tired of hearing my name myself," the genuinely humble Redzepi told me.) Another critic called him the "personification of nature worship," which he described as "an ardent belief system among top-tier chefs that seems to skirt the distinction between gastronomy and religion."

The philosophy of this Danish demigod informs not only his cooking but the management of his restaurant. Rather than building on his success by spinning off an airport franchise, Redzepi mothballed Noma for three months and flew his entire staff of 60—from sous chefs to dishwashers—to Japan. Years in the making, the pop-up was a daring

gambit. “We really had the potential to look like idiots,” concedes Redzepi.

He took on the challenge of Tokyo because it was foreign to him and has such a rich food culture. “Even though we’re considered a success, you sometimes can be so comfortable in your success that you stop seeing opportunities and stop seeing possibilities. The pop-up is a shake-up.”

Tokyo’s Mandarin Oriental Hotel gave Redzepi and his team its Michelin-starred restaurant Signature on the 37th floor. They were allowed to skim off the lush purple velvet upholstery and crystal chandeliers and furnish the space in spare Danish style. The prime asset of the room is the view of Mount Fuji, 60 miles away.

‘A Needle to Its Brain’

The Danish-Japanese fusion is evidenced not just in the food and decor but in the personnel as well. As I enter the dining room, I’m greeted warmly and bowed to by dozens of Noma and hotel staff, all in Noma’s signature pale-gray uniforms.

After being seated and given a moment to gaze out at the spectacular vista, I’m presented with a wine glass of fragrant juice: apple infused with pine and a Japanese citrus called sour kabuso. Noma offers wine, but juice pairings are an innovation Redzepi came up with eight years ago. Today, they’re so pervasive that even Evolution, the juice of Starbucks, suggests "pairings" on its website.

With great ceremony, the first of my 14 dishes arrives. And it’s a shocker: a langoustine on a bed of ice, the tail shell peeled back to expose the raw flesh, which is speckled with large black ants. I gamely take a bite. To my horror, the tentacles wave frantically. Steadying myself, I ask one of my servers, Redzepi himself, if the shellfish is still alive. “It feels alive, but it’s dead,” he assures me.

"How?" I ask, hesitantly.

"A needle to its brain. For three to four minutes after the langoustine is killed, it moves as if it were electric."

This little guy seems to be running on AC current. Which is not exactly comforting. It's kind of off-putting to see my meal trying to high-five me from the plate. I close my eyes and bite into the ant-y tail. It's...delicious! Almost like lobster ice cream. With salted ant jimmies.

I ask James Spreadbury, Noma's manager, if the ants are farmed or wild. "Wild," he says. "From the Nagano Forest. We find them under tree stumps."

As I await the next course, I glance around the room and observe a similarly stunned reaction from diners at other tables. I'm relieved by what comes next: citrus segments with tiny, pickled Okinawa chilies in a puddle of roasted kelp oil. They don't budge an inch.

This is followed by shaved monkfish liver that's frozen and served on lightly grilled toast. It comes on a pale-gray napkin that matches the Noma uniforms. I am urged to eat the liver quickly before it melts. I do, and take a sip of palate-cleansing juice. The apple-pine perfectly complements Course No. 4, cuttlefish sliced into ribbons that mimic soba noodles. My server hands me a bowl of pine broth and rose petals, and advises me to dip each "noodle" in the sauce before I devour it.

The fifth course appears to be a slice of banana pie, but was, as you probably guessed, freshwater clams and wild kiwi paste on a sea kelp pastry shell. The staff is particularly proud of the clams. There are 45 per tart, and 13 people spent eight hours shucking them. The amazingly complex flavors linger, continually changing like one of Willy Wonka's everlasting gobstoppers.

Mads Kieppe, the sommelier, explains the difficulty of pairing wine with the clams. "I wouldn't drink anything for

five minutes after eating it," he cautions. Kieppe pours me another juice: cooked turnip spiked with yuzu and black currant shoots. This is floral and not sweet. Kieppe and the chefs spend much more time on the juice pairings than the wine combinations. Each juice is developed for a specific segment of the meal and is almost like a parallel broth course.

Redzepi is proudest of his creamy steamed tofu, which comes studded with wild walnuts. "Tofu is an ancient tradition that is very difficult to make," he says. It's not difficult to eat, however.

A cube of dried scallops with beechnuts and kelp looks not unlike a Rice Krispies square. It disappears on my tongue instantly. I chase it down with cucumber seaweed juice.

My vote for the prettiest dish goes to the sliced pumpkin dressed in cherrywood oil and salted cherry blossoms. This comes with a matching pumpkin and green gooseberry juice worthy of the flagons Harry Potter drinks at Hogwarts.



The most aesthetically pleasing of the courses: pumpkin, cherry stems and dried salted cherry blossoms. Credit: Maggie Lidz for Newsweek

A black ceramic plate is placed dramatically in the center of the table. On it are three black "garlic flowers," a homage

to the Japanese art of origami. I'm helpfully instructed to pick up the flower (basically a folded fruit leather) and eat it tip to stem. The fermented garlic paste is mild and slightly sweet. It has the chewy texture and flavor of black licorice. The diner at the next table, ramen king Ivan Orkin, calls the flowers "grown-up candy."

White root vegetables are served in a white bowl accented with a red preserved egg in the center, echoing the Japanese flag. Kieppe pours me a mushroom mocktail that he says is "in between a broth and a tea." I wonder if the White Rabbit said the same thing to Alice.

To this point, everything has been either cold or room temperature. Here comes the very first hot dish: a roasted whole wild duck (head and feet included) with a sauce of matsubusu berries, the color and pungency of blueberries. The breast meat is sliced on the body and is pulled off easily with chopsticks.

The servers whisk away the carcass and say that it will return shortly, "transformed." In the meantime, I get a steaming cup of broth with a tasty turnip.

The duck returns, looking drawn and quartered. It's been re-roasted and hacked apart. The head, halved lengthwise, stares up at me, tongue poking from its bill. Guess I've entered the guys' part of the meal. I long for the pink rose petals.

Dessert begins with a sweet koji water and juniper berry concoction. Then an extraordinary bowl of what my server calls "rice" that somehow involves the lees of sake. A sorrel sauce on the bottom makes this dish a conscious tribute to the Danish-Japanese alliance.

What seems like a fitting finale is not a finale at all but a prelude to a series of treats. A molten sweet potato is covered in caramelized raw sugar, wild kiwi sauce on the side. I fight the urge to lick my plate. A fairy-tale landscape of moss is topped with chocolate-dipped

fermented mushrooms and delicate twigs of wild cinnamon. The Noma team foraged for the mushrooms and cinnamon in the woodlands of Aomori, in northern Japan.

The guests leave the dining room happily swooning. The staff is exultant. I ask Redzepi, the visiting Prince of Denmark, which Hans Christian Andersen tale this adventure reminds him of. He mulls his answer for a beat and quips, “Well, of course I thought of The Emperor’s New Clothes, but I don’t know, it’s too early to say. Ask me in five weeks.”



Paul Moseley/Fort Worth Star-Telegram/MCT/Getty

'AMERICAN SNIPER' AND THE SOUL OF WAR

CLINT EASTWOOD'S AMERICAN SNIPER SHOWS WE CAN ALL LEARN A PROFOUND LESSON FROM THE MOST LETHAL SHARPSHOOTER IN U.S. MILITARY HISTORY.

"I always seemed more vulnerable at home," wrote Chris Kyle in his 2012 book, American Sniper: The Autobiography of the Most Lethal Sniper in U.S. Military History, which has sold an estimated 1.6 million copies and has been made into a Clint Eastwood film that opened December 25. "Overseas, on deployment, in the war, I

seemed invincible," Kyle wrote. But then some minor injury, like a broken toe, would befall him back home. "You take your superhero cape off every time you come home from deployment," Taya Kyle told her husband.

She was right. Kyle was not felled in Nasiriyah, Fallujah or Sadr City. It wasn't a roadside bomb that got him, nor an insurgent sniper. Chris Kyle was killed on February 2, 2013, by Eddie Ray Routh, a deeply disturbed Marine who was one of the veterans Kyle had dedicated himself to helping. He had taken Routh shooting at Rough Creek Lodge, outside of Dallas, because Kyle thought that men who shot guns in Iraq and Afghanistan might want to keep shooting guns in Texas. He was right, too right. Routh shot Kyle and another man, Chad Littlefield, thus leaving Taya Kyle alone with two young children and proving Chris Kyle's premonition about his stateside vulnerability tragically correct.

Much of Eastwood's film takes place on the battlefield: We see the world reduced to the crosshairs of a scope, all moral quandaries compressed into the question of whether to squeeze the trigger. Lying prone on a rooftop, as he almost always is, Kyle pleads in a whisper for a boy not yet old enough to shave to drop the grenade launcher of a dead insurgent. If he keeps the weapon, he is an enemy and must be killed. "I don't see too much gray," Kyle wrote in his book, which opens with him killing a woman determined to lob a Chinese grenade at a unit of approaching Marines. After she's dead, Kyle concludes that the American lives he saved "were clearly worth more than that woman's twisted soul."

American Sniper—the book, but not the movie—often delves into this uncomfortable moral territory, making the fight in Iraq seem less like a military campaign than a religious crusade. "Savage, despicable evil. That's what we were fighting in Iraq," writes the man insurgents branded Shaitan ar-Ramadi (the Devil of Ramadi). His

pronouncement certainly sounds messianic. Yet many in the Bush administration felt exactly the same way.



Bradley Cooper stars as Chris Kyle in "American Sniper." Credit: Keith Bernstein/Warner Bros.

Timothy Murphy climbed a tree and positioned his rifle. Three hundred yards away was Brigadier General Simon Fraser, and Murphy had been ordered to kill him. Murphy did not hit Fraser with his first shot, nor with his second. But the marksman from Pennsylvania fatally wounded Fraser with a third shot, and he died the next morning.

This scene took place on October 7, 1777, during the Second Battle of Saratoga, of the Revolutionary War. The fight was won by the Americans and became a foundational stone in the legend of "Sure Shot Tim," whom Andy Dougan calls "a precursor of the modern sniper" in Through the Crosshairs: A History of Snipers. Murphy was "a man who uses his deadly skill as a marksman to target opposing commanders and shatter the morale of the enemy."

The 1st United States Sharp Shooters were formed during the Civil War, by Colonel Hiram Berdan. "We have no drill or picket duty," he advertised. "Our warfare

is like the guerilla or indian.... You are privileged to lay upon the ground while shooting, picking your position. No commander while firing." By the end of September 1861, he had 1,392 men under his command, as well as permission to form a second regiment.

The mythic image of the sniper proffered by Berdan has endured. He is a soloist, a minimalist, a brooding freelance killer who lurks in the shadowy edges of the chaotic fray. During the Vietnam War, where the irregular terrain made traditional warfare obsolete, snipers were seen as having a tactical advantage over regular infantry. "You don't select the first gooner that comes into your field of fire," counseled Captain Jim Land, who trained snipers in Hawaii. "I know that as grunts it was easy for you to feel justified in killing the enemy when he attacked you—he was trying to kill you. … As a sniper you do not have that luxury. You will be killing the enemy when he is unaware of your presence.... You will be, in a sense, committing murder on him—premeditated."

The military historian Adrian Gilbert once called the sniper "the ultimate hunter in a game where the quarry shoots back," a description that would have surely appealed to Kyle. The product of north-central Texas, Kyle wrote that he "always loved guns, always loved hunting." He got into fights at school, though he claims he "didn't start most of them." After high school, he dipped in and out of college, then worked as a ranch hand. In 1999, he did what he had long wanted to do and enlisted in the Navy, eventually becoming a member of a SEAL team. He makes no pretense of being the best marksman in his class. Yet he was good enough to become, in time, a sniper.

Jeremy A. Mitchell, who served as an Army sniper in Afghanistan's treacherous Kunar province, told me that being a sniper was a "coveted position." But it was also a difficult one, he recalls. "You lay in the same place for days," watching for enemy movements. Mitchell would

go for weeks without showering or changing. “Out in the elements the whole time,” he recalls. “You just get fatigued.”

The genius of the Chris Kyle story is that it imbued warfare with a kind of glamorous sheen, turning the privations Mitchell describes into the stuff of macho American legend. His book is clearly written for a generation reared on PlayStation, Red Bull and Vin Diesel flicks. “Fuck, I thought to myself, this is great,” he wrote. “I fucking love this. It’s nerve-wracking and exciting and I fucking love it.” He was good at it, too, with 160 kills to his name. Yet it is hard to imagine a similar sentiment from a dogface who’d liberated Buchenwald, or from a grunt who’d spent a miserable year wading through the bloody rice paddies of Da Nang.

Brian Van Reet, a veteran who served in Iraq, has accused Kyle and others of promulgating the “kill memoir” genre, in which the horrors of war are treated with a sunny, uncomplicated, Rumsfeldian braggadocio. Authors like Kyle, he wrote in The New York Times, “[offer] the spectacle of high body counts and terrorists twitching on the floor as proof that we are winning. Or if not that exactly, then proof we have inflicted serious damage.” Van Reet, who is now a writer, read American Sniper but has not yet seen the movie. He told me that he thought Kyle was “an embellisher” and that the movie based on his memoir is for “people who like Toby Keith,” the gratingly patriotic country singer.

I do not like Toby Keith songs, or for that matter, any country music except that one song by Garth Brooks about having friends in low places. Nevertheless, there is much to admire about the movie Eastwood has made.

The film version of Chris Kyle, for starters, is far more likable than the one in the book, even if the latter is more faithful to life. Bradley Cooper, who plays Kyle, could make

just about anyone seem like the kind of guy you'd want for a brother-in-law. He captures Kyle's bravado, at once alluring and threatening, but endows the character with depth. It's almost something like naïveté, a likable aw-shucks-I'm-just-a-Texas-boy-doing-my-job quality. Sienna Miller is also excellent, as the devoted but brassy Taya Kyle, though she is underused.

The battle scenes are poems of dust and blood. Eastwood has made a great combat movie; a great war movie, however, would have needed more of Kyle at home, trying to find a purpose in the civilian world, struggling with alcohol, feeling holy matrimony slip from his grasp. While on leave, he is startled at the sound of a lawnmower. In that moment, Cooper capably broadcasts the inner anguish of his character, the bad juju he brought back from the ghoulish theater of war; Eastwood could have done more with that flash of pain. And with Routh, too, whom we see only in the final sequence of the film. Kyle's death is treated almost like an afterthought, though the credit sequence, which shows actual footage from his funeral procession through Texas, is so moving because it is so real.

Perhaps what makes some uncomfortable about Kyle is that he reminds us of who fights our wars. "You live in a dreamworld," he once told an interviewer. The implication was that he, Kyle, didn't. Eastwood forces us to leave that snug dreamworld for about two hours, but while still stuffing our faces with popcorn and soda. Then we can go back to our lives, without ever having to think again about Muqtada al-Sadr.

"It's not even on the news," Kyle complains to Taya during a spell back home. "No one cares." This must have been a dismaying thought for someone who felt the cosmic import of what he was doing. Even those soldiers who didn't share Kyle's religious vision of the conflict felt keenly the apathy back home. There was "no attempt by the government to call for some national sacrifice," Van Reet

told me. “Besides asking people to go out and shop more, there was no effort.”

Invariably, both the right and left will use American Sniper, though the movie is far less susceptible to political manipulations than the book on which it is based. But when has that stopped anyone? Already, a writer for the liberal Guardian has written a piece labeling Kyle a “hate-filled killer,” while a critic for the right-leaning New York Post praised the Navy SEALs depicted therein as “a class of men in whom is contained a distilled essence of the American spirit.”

Some will surely go see the movie because they are fans of Chris Kyle and what he represents, the cowboy machismo of the Texas plains. And others will avoid it for much the same reason. But both blind devotion and wholesale rejection miss the point. The wars are yours, whether you love them or not.

01

DRAWN OUT

Amman, Jordan - Upset over cartoons depicting the Prophet Muhammad in the French satirical weekly Charlie Hebdo, Muslims take to the streets January 16 following Friday prayer. Across the Muslim world, religious leaders have called for calm as angered crowds protested the newspaper's choice of its cover subject—a weeping Muhammad, holding a "Je Suis Charlie" sign—for its first issue since the massacre in its offices that left 10 staffers dead. A Pakistan protest that same day turned violent, with police firing warning shots and water cannons to disperse demonstrators.



Raad Adayleh/AP

02

NOT ALL IS FORGIVEN

Paris - With the French government on edge following attacks by armed gunmen on the offices of satirical weekly Charlie Hebdo and a kosher supermarket, 10,000 soldiers patrol the streets and guard Jewish schools and other sites deemed at risk on January 14. Despite the increased security measures, the Jewish Agency of Israel said it expects about 10,000 French Jews to immigrate to Israel this year—a slight increase from the 7,000 French Jews who made aliyah, moving to Israel last year.



Christophe Ena/AP

03

YOUNG AND ANGRY

Lima, Peru - Demonstrators clash with police during an anti-government protest on January 15. Thousands of young men and women marched through the streets of Lima to protest the government's new youth labor law that eliminates some labor rights for workers ages 18 to 24. This was the fourth march against the bill since it was passed last month, with protesters claiming the law turns many young people into cheap labor. Under the new law, young workers would not get severance and would be entitled to half the vacation pay given to their older counterparts.



Sebastian Castaneda/Anadolu Agency/Getty

04

RED-CARPET TREATMENT

Manila, Philippines - Pope Francis arrived at the airport January 15 before greeting hundreds of thousands of cheering Catholics as he toured the streets of the capital, waving from the back of his “popemobile.” Francis is the third pope in 45 years to visit the largest predominantly Catholic country in Asia. Authorities expect up to 5 million people to attend the public Mass scheduled at Manila's Rizal Park on January 18. While focusing on the poor, the pope made a point of criticizing corruption in the Philippines and defending the church’s ban on contraception.



ANSA/Osservatore Romano/Zuma